Hong Kong Film Capacitor (Shun Tai) Co., Ltd.

About HK Film Capacitor :

HK Film Capacitor (Shun Tai) Co., Ltd., formerly named as Shun Tai (Resources) Enterprises Ltd., was established in Hong Kong 1981, specializes in designing and manufacturing Power Film Capacitor for AC and DC voltage application. Quality is our prime consideration. Our AC series capacitors carry UL recognition.

Our strong engineering team can design various types of film foil capacitors to suit for various applications. Their jobs not only concentrate on the electrical characteristic performance of the capacitors but also mechanical need. Different connections and mounting options are provided to increase your design flexibility.

About Our Film Capacitor : tailor-made Design Capacitor

Most of the Electrical Characteristic, Mechanical size and Construction, Electrical Connection can be made according to customer's need. Our engineers can design various types of film foil capacitors to suit for various applications. HKFC's job are not only concentrated on the electrical characteristic performance of the capacitors but also mechanical need. Different connections and mounting options are provided so as to increase your design flexibility.

Dry Construction : Epoxy Resin with Plastic Case

Advantage for Plastic Case over Metal Cam case :

-High Insulation Resistance
-Ability to withstand vibration
-Flameproof
-Plastic Case will not oxidation and against corrosion by acid and alkaline
-Longer Life Time

Electrical Characteristic :

Design Capacitor according to your need and meet your Capacitance, Voltage, Testing Voltage, Dissipation Factor, ESR, Size, Current Carrying Capacity, Operating Temperature, Operating Lifetime, Capacitor Mounting & Connection requirement.

Electrical Connection :

Capacitors with different connections and mounting options so as to increase your design flexibility.
-Terminations can be solder tags, single or double quick terminal, Stiff wire, Flexible wire, Twin-core cable, Tin plated copper lead wire (Box type only)
-Stiff wire, Flexible wire : UL #1015, 105C, AWG# 16, 18, 20
-Wire and Cable with receptacle, terminal or even power connectors
-Terminal type : Ring, Y or Pin terminal with various size
-Screw Terminal and Screw Nut

Brand :

HKFC
HK Film Capacitor
Shun Tai – for Motor Run Capacitor only

HKFC - Film Capacitor :

Motor Run Capacitor :

Customer designed Capacitor :

Appendix :

Other Power Film Capacitors :

High Voltage Film Capacitor - up to 18000Vac / 30000Vdc

Higher power Energy Storage Capacitor

Detail Information is available on request.

Motor Run Capacitor : – continuous operation

Typical Application :

Motor Run Capacitor – ideal for various motor applications in washing machine, air conditioner, electric water pump, power factor collection
By connecting the capacitor in series with the starting winding motor, allow motors with two or three windings to function on a single-phase supply.

Construction :

Self-healing, low dielectric loss metallized polypropylene
Cylindrical or Box Plastic Case : self-extinguishing (UL-94V0 grade) plastic
Optional : Thermoplastic Plastic Case – so that the capacitor can be operated at a higher temperature range and harsh working environment
Epoxy Resin : self-extinguishing (UL-94V0 grade)
Size : Cylindrical : Diameter : 30-65mm / High : 65-118mm
Box : Width: 32-60mm High: 20-38mm Thickness: 14-26mm

Electrical Connecting :

Soldering terminal
Single or double quick terminal
Stiff wire
Flexible wire
Twin-core cable
Wire or cable with receptacle or terminal
Tin plated copper lead wire (Box type only)

Mounting system :

Cylindrical Plastic Case : with Stud - M8 / without Stud
Box Plastic Case : Screw mounting tab / without Screw mounting tab

Properties :

Low Dissipation Factor, high Insulation Resistance, Self-Healing, Non inductive, long operating time
Providing different connections and mounting options so as to increase your design flexibility.

Safety Class : P0 P1 P2

Reference standard :

EN60252-1994, VDE0560-8, IEC.252-1993, UL810, CSA C 22.2, JIS : 4908-1995

Safety Approval :

UL E147352

Electrical Characteristic :

Capacitance range : 2.5 - 100uF
Rated Voltage : 370Vac, 400Vac, 450Vac, 500Vac, 600Vac, 650Vac
Capacitance Tolerance : ±5%; ±10%
Dissipation factor (DF) < 0.002 at 23C 50/60Hz
I.R. : Terminal – Terminal >5000 ohm uF
Terminal – Case >1000M ohm uF
Min. / Max. Operate Temperature : -25~70C / -40~85C
Rated frequency : 50 ~ 60Hz
Testing Voltage : Terminal – Terminal : 2.15 x U_n 10sec (can be customized design)
Terminal – Case : 3000AC 10sec
Maximum Permissible Overvoltage : 110% of rated voltage
Maximum Permissible Overcurrent : 130% of rated current
Maximum Permissible Reactive output (Voltage-Ampere) : 135% of rated Volt-Ampere
Pulse Voltage rise & fall time dV/dt : detail information available on request

Life Expectancy :

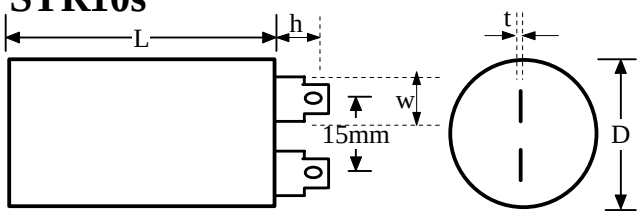
Class A	Class B	Class C	Class D
30,000hrs	10,000hrs	3,000hrs	1000hrs

The combination of Capacitance value and Voltage or should there be a dimensional constraint, please contact us for a design suited to your particular needs.

Cylindrical Capacitor Configuration - Electrical Connection and Mounting :

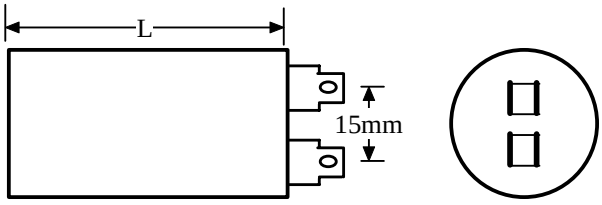
Quick Terminal : 187 : w4.75 x h10 x t0.5mm
250D / 250S : w6.35 x h10 x t0.8mm
Solder Terminal : T280 : w2 + 2.8 x h12 x t0.5mm - pulse grade capacitor only
Electrical Wire length : 100mm, other length is available;
6.35mm female terminals (optional)

STR10s



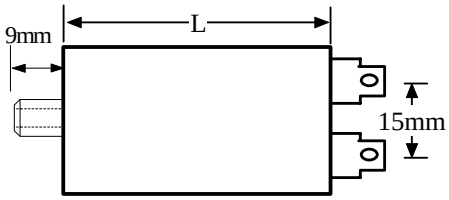
single quick terminal

STR10d



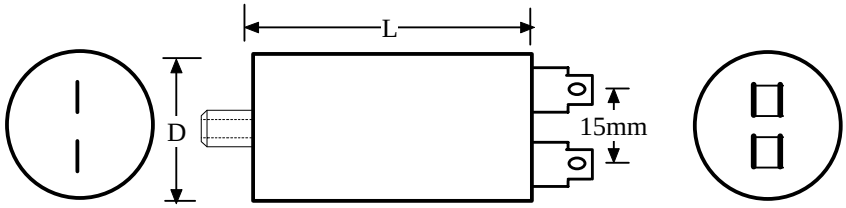
double quick terminal

STR14s



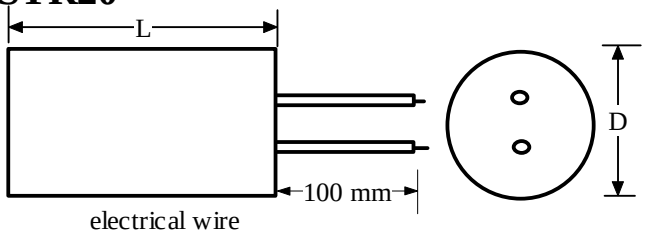
M8 stud with
single quick terminal

STR14d



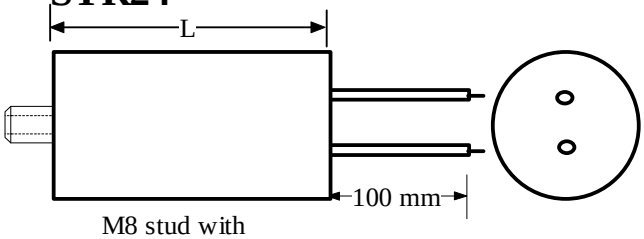
M8 stud with
double quick terminal

STR20



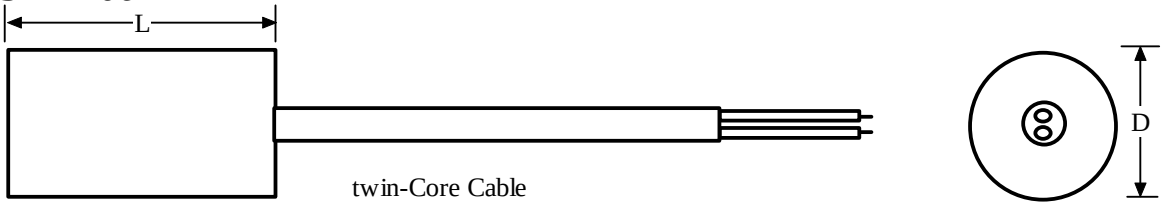
electrical wire

STR24



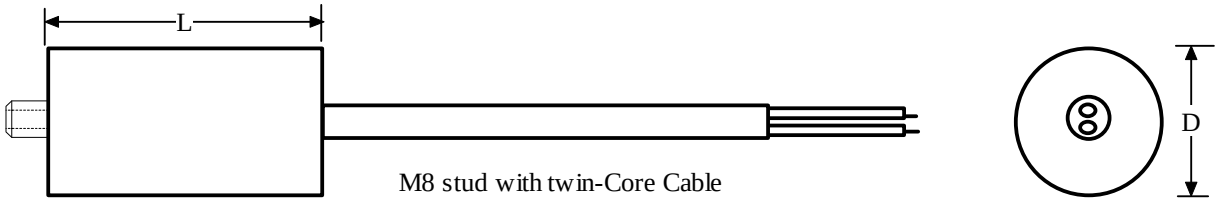
M8 stud with
electrical wire

STR20t



twin-Core Cable

STR24t



M8 stud with twin-Core Cable

: Optional Faston Terminal 6.35mm for STR-20, STR-24,
there are some other Terminals for your choice, please refer to page 30

Detail drawing for the Tab Terminal, please refer to page 29.
The above packaging configuration can be applied for all cylindrical type capacitors.

Cylindrical Motor Capacitor dimension :

	Dimension : Diameter x Length in mm	
Capacitance uF	**250Vac**	**400Vac**
4uF	30 x 55	30 x 55
5uF	30 x 55	30 x 55
6uF	30 x 55	30 x 55
7uF	30 x 55	30 x 55
8uF	30 x 55	30 x 55
9uF	30 x 55	35 x 55
10uF	30 x 55	35 x 55
12uF	30 x 55	35 x 55
15uF	35 x 55	35 x 73
20uF	35 x 73	40 x 73
25uF	35 x 73	40 x 73
30uF	35 x 73	45 x 73
35uF	40 x 73	45 x 73
40uF	40 x 73	45 x 93
45uF	45 x 93	45 x 93
50uF	45 x 93	45 x 128
55uF	45 x 93	45 x 128
60uF	45 x 93	45 x 128
70uF	45 x 128	
80uF	45 x 128	

Motor Run Capacitor : box type :

Typical Application :
This series of Motor Run Capacitor is specially designed for AC mini motors and electrical apparatus.
Applications like Electric Fan, Ceiling Fan, Bread Maker and Home Appliance.

Features :
high Insulated Resistance
loss dielectric loss : less electrical energy loss by the capacitor during operation
stable temperature characteristic : dissipation factor and capacitance remain stable and will not be changed by ambient temperature

Construction :
Self-healing low, loss metallized polypropylene
Box Plastic Case and Epoxy Resin : self-extinguishing (UL-94V0 grade) plastic
Optional : Thermoplastic Plastic Case – so that the capacitor can be operated at a higher temperature range and harsh working environment

Electrical Connecting :
Soldering terminal
Single or double quick terminal
Stiff electrical wire
Flexible electrical wire
Electrical wire with receptacle or terminal
Tin plated copper lead wire (Box type only)

Mounting system :
Screw mounting tab / without Screw mounting tab

Properties :
Low Dissipation Factor, high Insulation Resistance, Self-Healing, Non inductive, long operating time
Providing different connections and mounting options so as to increase your design flexibility.

Reference standard :
EN60252-1994, VDE0560-8, IEC.252-1993, UL810, CSA C 22.2, JIS : 4908-1995

Safety Class : P0 P1 P2

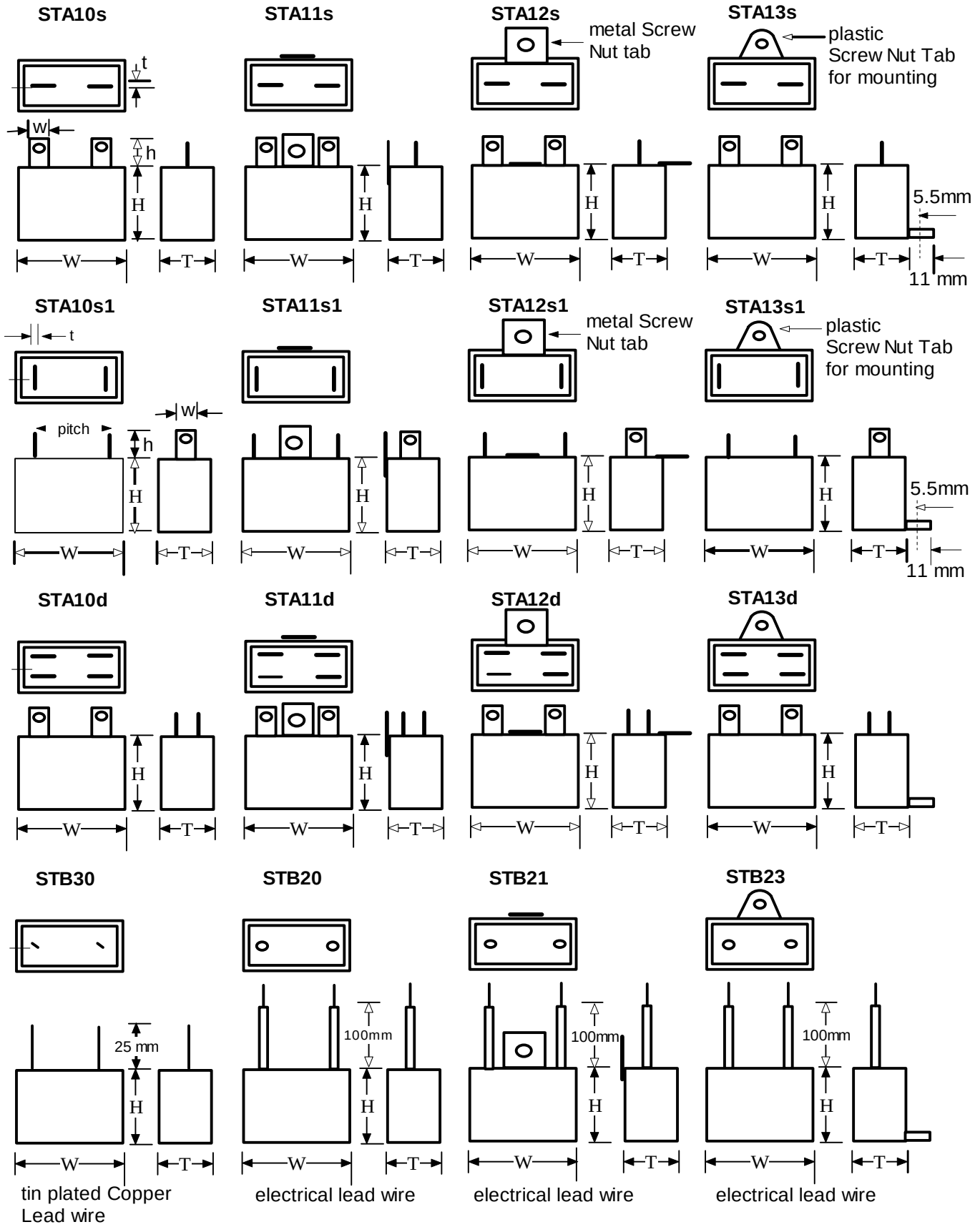
Safety Approval :
UL E147352 **CSA** 22.2 No.190 **VDE** 560-8

Electrical Characteristic :
Capacitance range : 1 ~ 35uF
Rated Voltage : 250Vac, 370Vac, 400Vac, 450Vac
Capacitance Tolerance : ±5%
Dissipation factor (DF) < 0.002 at 23C 50/60Hz
I.R. : Terminal – Terminal >100M ohm uF at 100VDC 1min.20C
Terminal – Case >200M ohm uF at 500VDC 1min.20C
Min. / Max. Operate Temperature : -25~70C / -40~85C
Rated frequency : 50 ~ 60Hz
Testing Voltage : Terminal – Terminal : 2.15 x U_n 10sec (can be customized design)
Terminal – Case : 3000AC 10sec

Box Type Capacitor Configuration - Electrical Connection and Mounting :

Box type : STA and STB series

Quick Terminal : 187 type : w4.75 x h10 x t0.5mm
250 type : w6.35 x h10 x t0.8mm
Solder Terminal : T1 type : w4 x h8 x t0.5mm
Tin Plated Copper Lead
standard electrical lead wire length : 100mm, other length is available



The above packaging configuration can be applied for all plastic box type capacitor.

Motor Run Capacitor Box type : STA and STB series size :

Dimension in mm

Capacitance: uF	Rated Voltage														
	250Vac			300Vac			350Vac			400Vac			450Vac		
	W	T	H	W	T	H	W	T	H	W	T	H	W	T	H
1.0	32	11	21	37	13.5	25	37	13.5	25	37	13.5	25	37	14.5	25
1.5	32	11	21	37	13.5	25	37	13.5	25	38	18	29	38	18	29
2.0	32	11	21	37	13.5	25	38	18	29	38	18	29	50	20	30
2.5	32	11	21	37	14.5	26	38	18	29	50	20	30	50	20	30
3.0	32	13	23.5	38	18	29	37	19	29	50	20	30	51	22	32
3.5	32	13	23.5	38	18	29	50	20	30	50	20	30	58	23	35
4.0	37	14	25	37	19	29	50	20	30	51	22	32	58	23	35
4.5	37	13.5	25	50	20	30	50	20	30	58	23	35	58	23	35
5.0	37	13.5	25	50	20	30	51	22	32	58	23	35			
5.5	37	13.5	25	50	20	30	51	22	32	58	23	35			
6.0	37	14.5	26	51	22	32	58	23	35	58	23	35			
6.5	38	18	29	51	22	32	58	23	35	58	23	35			
7.0	38	18	29	51	22	32	58	23	35						
8.0	38	18	29	58	23	35	58	23	35						
9.0	37	19	29	58	23	35									
10.0	50	20	30	58	23	35									
11.0	50	20	30	58	23	35									
12.0	50	20	30												
13.0	50	20	30												
14.0	50	20	30												
15.0	50	22	32												
16.0	50	22	32												

Other combination of Capacitance value and Voltage or should there be a dimensional constraint, please contact us for a design suited to your particular needs.

Motor Run Capacitor – Part Number System :

ST_ _ _ _-_ _ _ _ _ _ _ _

1 2 3 4 a 5 5 56 6 6 7 8

1 : series designation

ST

2 : basic design

A: capacitors with Tab Terminal - Box
B: capacitors with Leads - Box

R: capacitors with cylindrical shaped enclosure

3 : electrical connection

1. tab terminals
2. standard copper leads
3. Tin-plated copper wire

4 : mounting means

0. with no mounting design
1. straight mounting tab – Box type
2. angled mounting tab – Box type
3. integral flat mounting bolt of enclosure – Box type
4. integral threaded mounting bolt of enclosure – cylindrical type

a. : Terminals and Electrical Wires type – electrical connection

single terminal - s
double terminal - d
Twin-core cable (cylindrical type) - t
Stiff wire (cylindrical type) - w
Flexible wire (cylindrical type) - f
Wire or cable with receptacle or terminal : t, w, f + terminal code

5 : capacitance

105 : 1uF
106 : 10uF
107 : 100uF
108 : 1000uF

6 : voltage : AC voltage

220V 250V 370V 400V 450V 500V 600V 630V 800V

7 : tolerance

J : ±5% K : ±10%

8 : Safety Class :

nil: - P0
P1 : - P1
P2 : - P2

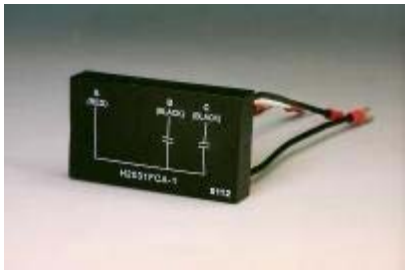
Capacitors Module :

Dual-Capacitance Capacitor :

This series of Motor Run Capacitor content two independent capacitors in a single-housing.
A typical application is in the air conditioning units where capacitors are required for both compressor and fan motors.

Construction :

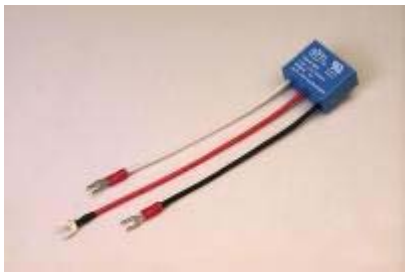
Self-healing, low loss metallized polypropylene
Cylindrical or Box Plastic Case : self-extinguishing (UL-94V0 grade) plastic
Optional : Thermoplastic Plastic Case – so that the capacitor can be operated at a higher temperature range and harsh working environment
Resin : self-extinguishing (UL-94V0 grade)
Size : Diameter : 30-65mm / High : 65-118mm
Box : Width: 32-60 High: 20-38 Thickness : 14-26mm



Properties :

Non inductive, Low Dissipation Factor, high Insulation Resistance, Self-Healing, spaces efficient.
Providing different connections and mounting options so as to increase your design flexibility.

Electrical Connecting :



Soldering terminal
Quick terminal
Stiff wire
Flexible wire
Core cable
Wire or cable with receptacle or terminal
Tin plated copper lead wire (Box type only)

Mounting system :

Cylindrical Plastic Case : with Stud -M8 / without Stud
Box Plastic Case : Screw mounting tab / without Screw mounting tab

Reference standard :

EN60252-1994, UL810, CSA C 22.2, JIS : 4908-1995

Electrical Characteristic :

Capacitance range : 0.1uF ~ 10uF + 0.1uF ~ 60uF
Rated Voltage : 125Vac, 220Vac, 250Vac, 370Vac, 400Vac, 450Vac, 500Vac, 600Vac
Circuit for the capacitors can be customized design
Capacitance Tolerance : ±5%; ±10%
Dissipation factor (DF) < 0.002 at 23C 50/60Hz
I.R. : Terminal – Terminal >5000M ohm uF
Terminal – Case >1000M ohm uF
Min. / Max. Operate Temperature : -25~70C / -40~85C
Rated frequency : 50 ~ 60Hz
Testing Voltage : Terminal – Terminal : 2.15 x U_n 10sec (can be customized design)
Terminal – Case : 3000AC 10sec
Pulse Voltage rise & fall time dV/dt : detail information available on request

The combination of Capacitance value, Voltage, Dimension or even connection between Capacitors, please contact us for a design suited to your particular needs.

Multi-Capacitance Capacitor :

This series of Capacitor intent to provide more than two capacitance in a single-housing.

Suitable for multi-speed control or improve output torque for Motor - Fan Speed Regulator and Motor Speed Regulator

Construction :

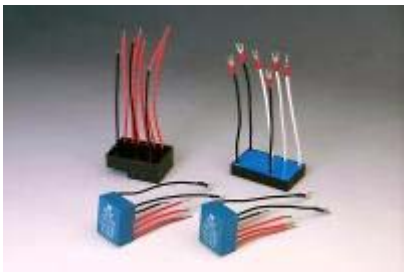
Self-healing, low loss metallized polypropylene
Cylindrical or Box Plastic Case : self-extinguishing (UL-94V0 grade) plastic
Optional : Thermoplastic Plastic Case – so that the capacitor can be operated at a higher temperature range and harsh working environment
Resin : self-extinguishing (UL-94V0 grade)
The inner connection and the capacitance can be tailor made according to the application

Properties :

Non inductive, Low Dissipation Factor, high Insulation Resistance, Self-Healing, spaces efficient.
Providing different connections and mounting options so as to increase your design flexibility.

Electrical Connecting :

Soldering terminal
Quick terminals
Stiff wire
Flexible wire
core cable
Wire or cable with receptacle or terminal
Tin plated copper lead wire (Box type only)



Mounting system :

Cylindrical Plastic Case : with Stud - M8 / without Stud
Box Plastic Case : Screw mounting tab / without Screw mounting tab

Reference standard :

EN60252-1994, UL810, CSA C 22.2, JIS : 4908-1995

Electrical Characteristic :

Capacitance range : customer design
Rated Voltage : 125Vac, 220Vac, 250Vac, 370Vac, 400Vac, 450Vac, 500Vac, 600Vac
Circuit for the capacitors can be customized design
Capacitance Tolerance : ±5%; ±10%
Dissipation factor (DF) < 0.002 at 23C 50/60Hz
I.R. : Terminal – Terminal >5000M ohm uF Terminal – Case >1000M ohm uF
Min. / Max. Operate Temperature : -25~70C / -40~85C
Rated frequency : 50 ~ 60Hz
Testing Voltage : Terminal – Terminal : 2.15 x U_n 10sec (can be customized design)
Terminal – Case : 3000AC 10sec
Pulse Voltage rise & fall time dV/dt : detail information available on request

The combination of Capacitance value, Voltage, Dimension or even connection between Capacitors, please contact us for a design suited to your particular needs.

Snubber Capacitor : **STP-01** series

This series capacitor has been specially developed for medium frequency range, higher dv/dt, peak current carrying capability.

Application :

Snubber Circuit, IGBT Snubber, SCR Snubber, GTO Thyristor Snubber, Thyristor controlled rectifier circuits, High Current Snubber circuit, Reduce or eliminate voltage or current spikes, Limit dV/dt and di/dt, Motor Control and Static Drive, inverter and converter,

Construction :

- Cylindrical or Axial Thermoplastic Case : self-extinguishing (UL-94V0 grade) plastic - so that the capacitor can be operated at a higher temperature range and harsh working environment
- Axial type with Tin Plated Copper lead or Terminals : wrapped with flame retardant tape and epoxy ends seal
- Box type

Providing different connections and mounting options so as to increase your design flexibility

Properties :

Low ESR and Inductance, Excellent Frequency Response, High r.m.s. Current Rating, High Pulse Current Ratings (dV/dt), High Voltage Capabilities, High Temperature, High Insulation Resistance, Non inductive, Flame Retardant Construction, Easy Installation

Electrical Connecting :

Tin plated copper lead wire / Flexible electrical lead wire

M6 / M8 build-in thread brass stub

Quick Terminals / Soldering tags / PCB soldering : 250 type (can be customized)

Electrical Characteristic :

Rated Voltage : 400Vdc ~ 3500Vdc / 200Vac ~ 2500Vac (can be customized)

Capacitance range : 0.01 ~ 40uF (can be customized)

Capacitance Tolerance : ±5%; ±10%

Equivalent Series Resistance (ESR) : measured at 25C 100kHz

Dissipation factor (DF) : <0.08% 1KHz) at 23C

Insulation Resistance : C<0.33uF : 30,000M ohm uF 1kVdc 60sec

C＞0.33uF : 50,000M ohm uF 1kVdc 60sec

Testing Voltage : 1.75 x U_n 10sec (can be customized)

Operate Temperature : -25~70C / -40~85C / -40~100C

Pulse Voltage rise & fall time dV/dt : detail information available on request

For details of individual capacitors, please feel free to contact us.

The combination of Capacitance value, Voltage, Dimension, please contact us for a design suited to your particular needs.

Snubber Capacitor – IGBT **SMKP2** series

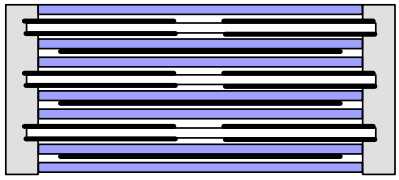
Application :

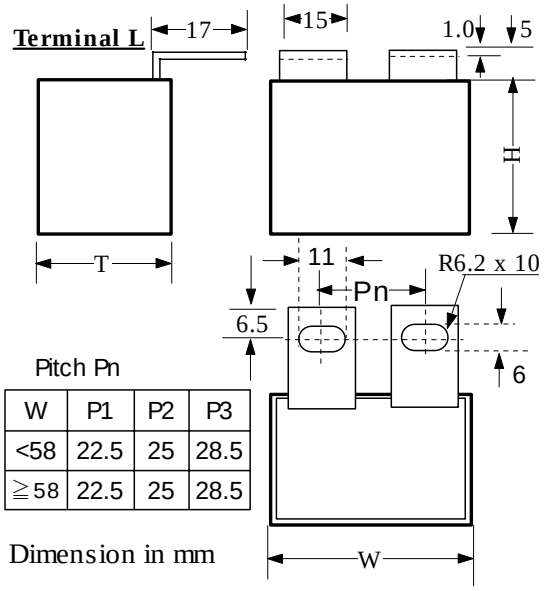
For protection against voltage and current transients in IGBT modules and applications where high dv/dt is encountered

Constructions :

-Low inductance construction
-Flame retardant plastic case and Epoxy Resin UL94V-0
-High Current carrying capacity Tinned Terminals for direct mounting the capacitor to IGBT module
-other Terminals also available

Construction : SMKP2-series





Pitch Pn

W	P1	P2	P3
<58	22.5	25	28.5
≧58	22.5	25	28.5

Dimension in mm

Electrical Characteristic :

Capacitance : 0.1uF ~ 3uF at 1kHz +25C
Capacitance Tolerance : ±5%(J), ±10% (K)

Rated Voltage Ur	1000Vdc	1200Vdc	1600Vdc	2000Vdc
	500Vac	550Vac	630Vac	650Vac

Test Voltage : between Terminals :1.6xUr Vdc for 60s +25C
Terminals to Case : 5kVac at 50Hz 60s
Dissipation Factor : $<5x10^{-4}$ at 1kHz +25C
Rated Temperature : -20C ~ +85C / -40 ~ +105C
Full rated voltage at 85C, derate linearly to 50% rated voltage at 105C.
Equivalent Series Resistance ESR : see item table
Equivalent Series Inductance ESL : < 22nH
Insulation Resistance : at +25C 500Vdc 1minute.
C<0.33uF : >150,000M ohm
C>0.33uF : >50,000M ohm

Specifications and Size

Part Number	Cap	Voltage		dV/dt	Ipeak	ESR 100kHz 25C	Irms 55C	Dimension mm ±1mm
	uF	Vdc	Vac	V/us	A	m ohm	A	W x H x T
SMKP2-154X1000DL	0.15	1000	500	800	120	9.1	7.9	45 x 32 x 22
SMKP2-224X1000DL	0.22			800	176	8.5	9.0	45 x 32 x 22
SMKP2-334X1000DL	0.33			800	264	7.6	11	45 x 32 x 22
SMKP2-474X1000DL	0.47			480	226	7.1	12.4	45 x 32 x 22
SMKP2-564X1000DL	0.56			480	269	6.9	14	45 x 32 x 22
SMKP2-684X1000DL	0.68			480	326	6.3	14.5	45 x 32 x 22
SMKP2-754X1000DL	0.75			480	360	5.6	15	45 x 32 x 22
SMKP2-105X1000DL	1.0			480	480	4.4	17.2	51 x 36 x 25
SMKP2-125X1000DL	1.2			480	576	3.6	19	51 x 36 x 25
SMKP2-155X1000DL	1.5			480	720	2.7	21.3	51 x 40 x 30
SMKP2-205X1000DL	2.0			320	640	2.5	25	59 x 45 x 35
SMKP2-225X1000DL	2.2			320	704	2.4	27	59 x 45 x 35
SMKP2-305X1000DL	3.0			320	960	2.2	29	59 x 45 x 35

Specifications and Size

Part Number	Cap	Voltage		dV/dt	Ipeak	ESR 100kHz 25C	Irms 55C	Dimension mm ±1mm
	uF	Vdc	Vac	V/us	A	m ohm	A	W x H x T
SMKP2-154X1200DL	0.15	1200	550	900	135	9.1	8.4	45 x 32 x 22
SMKP2-224X1200DL	0.22			900	198	8.5	11	45 x 32 x 22
SMKP2-334X1200DL	0.33			900	297	7.6	11.5	45 x 32 x 22
SMKP2-474X1200DL	0.47			550	258	7.1	13.5	45 x 32 x 22
SMKP2-564X1200DL	0.56			550	308	6.9	14.2	45 x 32 x 22
SMKP2-684X1200DL	0.68			550	374	6.3	15.6	45 x 32 x 22
SMKP2-754X1200DL	0.75			550	412	5.6	16.8	51 x 36 x 25
SMKP2-105X1200DL	1.0			550	550	4.4	18.6	51 x 36 x 25
SMKP2-125X1200DL	1.2			550	660	3.6	21	51 x 40 x 30
SMKP2-155X1200DL	1.5			550	825	2.7	23	51 x 40 x 30
SMKP2-205X1200DL	2.0			350	700	2.5	28	59 x 45 x 35
SMKP2-225X1200DL	2.2			350	770	2.4	29	59 x 45 x 35
SMKP2-305X1200DL	3.0			350	1050	2.1	32	59 x 45 x 35
SMKP2-104X1600DL	0.1	1600	630	1000	100	10	9.4	45 x 32 x 22
SMKP2-154X1600DL	0.15			1000	150	8	11.5	45 x 32 x 22
SMKP2-224X1600DL	0.22			1000	220	7.5	13	45 x 32 x 22
SMKP2-334X1600DL	0.33			800	264	7.0	14	51 x 36 x 25
SMKP2-474X1600DL	0.47			800	376	6.6	16	51 x 36 x 25
SMKP2-564X1600DL	0.56			800	448	6.2	18	58 x 37 x 32
SMKP2-684X1600DL	0.68			800	544	6.0	19	58 x 37 x 32
SMKP2-754X1600DL	0.75			500	375	5.8	20	58 x 37 x 32
SMKP2-105X1600DL	1.0			500	500	3.2	23.8	58 x 37 x 32
SMKP2-125X1600DL	1.2			500	600	2.8	25	59 x 45 x 35
SMKP2-104X2000DL	0.1	2000	650	1100	110	8	10	45 x 32 x 22
SMKP2-154X2000DL	0.15			1100	165	7.5	11	45 x 32 x 22
SMKP2-224X2000DL	0.22			850	187	7	13.8	45 x 32 x 22
SMKP2-334X2000DL	0.33			850	280	6.4	16.9	51 x 36 x 25
SMKP2-474X2000DL	0.47			850	400	6	19	51 x 40 x 30
SMKP2-564X2000DL	0.56			600	336	5.5	21.5	58 x 37 x 32
SMKP2-684X2000DL	0.68			600	408	5.0	24	59 x 45 x 35
SMKP2-754X2000DL	0.75			600	450	4.2	25	59 x 45 x 35

Where X is for Capacitance tolerance : J for +/-5%, K for +/-10% and M for +/-20%

Other Capacitance, Voltage, RMS Current and Terminals is available. Please contact us for a design suited to your particular needs.

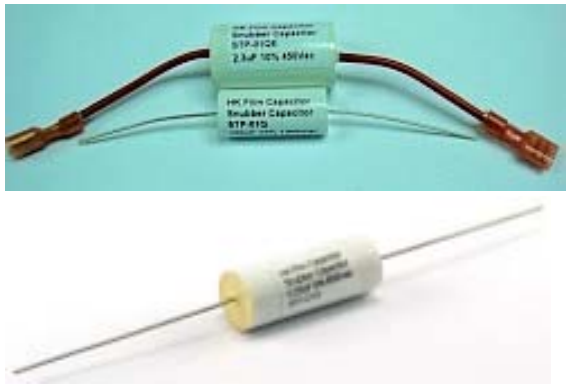
Snubber Capacitor – Axial Lead STP-01Q STP-0QE

Application :

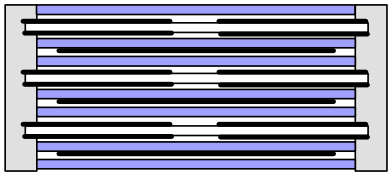
-Protecting Thyristor against transient voltage and current
-Applications where high dv/dt is encountered
-SMPS Snubbering circuit

Constructions :

- Axial Lead Configuration with Epoxy Resin (UL94V-0)sealed at both ends
- tin plated Copper Wire for PCB soldering
- STP-01QE can have Terminals at the Electrical Wire (page 26)



Construction :

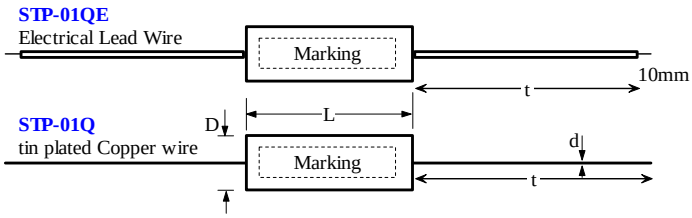


Electrical Characteristic :

Capacitance : 0.01uF ~ 4.7uF at 1kHz +25C
Capacitance Tolerance : ±5%(J), ±10% (K)
Voltage Range :

600 Vdc	850 Vdc	1000 Vdc	1200 Vdc	1600 Vdc	2000 Vdc	3000 Vdc
275 Vac	450 Vac	500 Vac	500 Vac	630 Vac	630 Vac	750 Vac

Test Voltage : between Terminals :1.6xUr Vdc for 60s +25C
Dissipation Factor : < 0.1% at 1kHz +25C
Rated Temperature : -20C ~ +85C / -40 ~ +105C
Full rated voltage at 85C, derate linearly to 50% rated voltage at 105C.
Equivalent Series Resistance ESR : see item table
Insulation Resistance : >100,000Mohm*uF
at +25C 100Vdc 2minute.



STP-01Q Specifications and Size : 600Vdc / 275Vac

Capacitance uF	Length mm	Diameter mm	Copper Wire d mm	ESR mohm	ESL nH	dv/dt v/us	Ipeak A 70C	Irms A 70C
0.10	34.0	9.0	0.8	28	19	195	19.5	2.5
0.15	34.0	10.5	1.0	13	20	195	29	4.0
0.22	34.0	11.5	1.0	12	20	195	43	4.4
0.33	34.0	13.5	1.0	9	21	195	64	5.6
0.47	34.0	15.5	1.0	7	22	195	91	6.9
0.68	34.0	18.0	1.0	6	23	195	132	8.0
1.00	34.0	21.0	1.0	6	24	195	195	8.9
1.50	34.0	25.0	1.2	5	26	195	293	10.0
2.00	46.0	23.5	1.2	5	31	128	256	11.0
3.30	54.0	27.0	1.2	4	36	105	346	15.0
4.70	54.0	32.5	1.2	4	38	105	490	16.5

STP-01Q Specifications and Size : 850Vdc / 450Vac

Capacitance uF	Length mm	Diameter mm	Copper Wire d mm	ESR mohm	ESL nH	dv/dt v/us	Ipeak A 70C	Irms A 70C
0.15	34.0	13.0	1.0	8	21	710	106	5.5
0.22	34.0	15.5	1.0	8	22	710	156	6.3
0.33	34.0	18.0	1.0	7	23	710	234	7.3
0.47	34.0	21.0	1.0	5	24	710	333	9.5
0.68	34.0	24.5	1.2	4	26	710	483	12.0
1.0	46.0	22.5	1.2	5	30	400	400	11.4
1.5	46.0	27	1.2	4	32	400	600	14.0
2.0	46.0	31	1.2	3	34	400	800	17.5
2.2	46.0	32	1.2	3	34	400	880	18.0
2.5	46.0	34	1.2	3	35	400	1000	19.0

STP-01Q Specifications and Size : 1000Vdc / 500Vac

Capacitance uF	Length mm	Diameter mm	Copper Wire d mm	ESR mohm	ESL nH	dv/dt v/us	Ipeak A 70C	Irms A 70C
0.15	34.0	15.0	1.0	7	22	855	128	6.5
0.22	34.0	17.5	1.0	7	23	855	188	7.5
0.33	34.0	21.0	1.0	6	24	855	280	8.8
0.47	34.0	24.0	1.2	5	26	855	400	10.5
0.68	34.0	28.0	1.2	5	27	855	580	11.5
1.0	46.0	26.0	1.2	5	32	480	480	12.5
1.5	46.0	31.0	1.2	4	34	480	720	15.3
2.0	46.0	36.0	1.2	3	36	480	960	19.0

STP-01Q Specifications and Size : 1200Vdc / 500Vac

Capacitance uF	Length mm	Diameter mm	Copper Wire d mm	ESR mohm	ESL nH	dv/dt v/us	Ipeak A 70C	Irms A 70C
0.10	34.0	15.5	1.0	9	22	1140	114	6
0.15	34.0	18.5	1.0	7	23	1140	170	7.5
0.22	34.0	22.0	1.0	7	24	1140	250	8.2
0.33	46.0	20.0	1.0	7	29	640	210	9
0.47	46.0	23.0	1.2	7	30	640	300	9.8
0.68	46.0	27.0	1.2	6	32	640	435	11.5
1.0	46.0	33.0	1.2	5	35	640	640	14.1
1.5	54.0	35.0	1.2	4	39	500	750	17.9

STP-01Q Specifications and Size : 1600Vdc / 630Vac

Capacitance uF	Length mm	Diameter mm	Copper Wire d mm	ESR mohm	ESL nH	dv/dt v/us	Ipeak A 70C	Irms A 70C
0.10	34.0	18.0	1.0	7	25	1425	140	7.0
0.15	34.0	22.0	1.0	5	24	1425	210	9.9
0.22	34.0	26.0	1.2	7	26	1425	310	9.0
0.33	46.0	24.0	1.2	7	31	800	260	10.0
0.47	46.0	28.0	1.2	6	32	800	375	11.5
0.68	46.0	33.0	1.2	6	35	800	540	13.0
1.00	46.0	39.0	1.2	5	37	800	800	16.0
1.50	54.0	42.0	1.2	4	42	625	940	20.0
2.00	64.0	43.0	1.2	3	45	470	940	21.0

STP-01Q Specifications and Size : 2000Vdc / 630Vac

Capacitance uF	Length mm	Diameter mm	Copper Wire d mm	ESR mohm	ESL nH	dv/dt v/us	Ipeak A 70C	Irms A 70C
0.022	34.0	12	1.0	35	6	1710	37	2.5
0.033	34.0	14	1.0	20	21	1710	56	3.6
0.047	34.0	15	1.0	12	22	1710	80	5.0
0.068	34.0	18	1.0	8	23	1710	116	6.6
0.10	34.0	21	1.0	7	24	1710	170	8.0
0.15	46.0	20	1.0	7	29	960	141	8.6
0.22	46.0	22	1.0	8	30	960	210	9.0
0.33	46.0	27	1.2	8	32	960	316	10.0
0.47	46.0	32	1.2	6	34	960	451	13.0
0.56	54.0	31	1.2	7	37	754	420	12.4
0.68	54.0	34	1.2	6	39	754	512	14.0
1.00	54.0	41	1.2	5	42	754	750	17.3

STP-01Q Specifications and Size : 3000Vdc / 750Vac

Capacitance uF	Length mm	Diameter mm	Copper Wire d mm	ESR mohm	ESL nH	dv/dt v/us	Ipeak A 70C	Irms A 70C
0.01	34.0	12	1.0	60	20	2568	25	2
0.015	34.0	14	1.0	40	21	2568	38	2.5
0.022	34.0	16	1.0	25	22	2568	56	3.5
0.033	34.0	18	1.0	14	23	2568	84	5.0
0.047	46.0	17	1.0	14	28	1440	67	5.5
0.068	46.0	19	1.0	12	29	1440	98	6.5
0.10	46.0	23	1.2	10	30	1440	140	8.0
0.15	46.0	27	1.2	8	32	1440	210	10

Energy Storage Capacitor
Pulse Grade Capacitor : **STP-02** series

Application :
Electric Fence Energizer, Welding Energizer Equipment, High intensity discharge lighting, High Energy and Current Discharge applications

Construction :
- Cylindrical or Axial Thermoplastic Case : self-extinguishing (UL-94V0 grade) plastic - so that the capacitor can be operated at a higher temperature range and harsh working environment
- Axial type with Tin Plated Copper lead or Terminals : wrapped with flame retardant tape and epoxy ends seal
- Box type : Terminals / Electrical Lead Wires / Tin plated Copper Lead Wires
- Epoxy Dipped type

Providing different connections and mounting options so as to increase your design flexibility

Properties :
Low D.F. & Dielectric loss, High Discharge Current & Voltage Capabilities; High Insulation Resistance; AC and DC voltage; Flame Retardant Construction; Easy Installation

Electrical Connecting :
Tin plated copper lead wire
Flexible electrical lead wire
Terminals : 250 type 6.35mm (page.29~30)
Terminals – which can deliver larger discharge current Ipp & Ir.m.s. when compare with lead wires

Mounting : Plastic Cylindrical Case : with stud – M8 / without stud

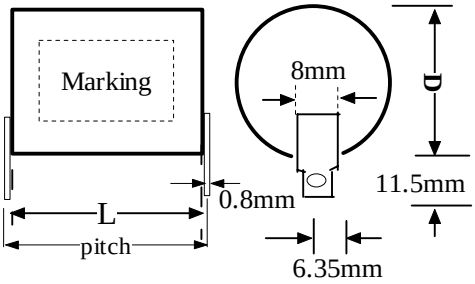
Electrical Characteristic :
Rated Voltage : 400 ~ 1600Vdc / 220 ~ 570Vac (can customized design)
Capacitance range : 0.1uF ~ 60uF
Capacitance Tolerance : ±5%; ±10%
Equivalent Series Resistance (ESR) : measured at 25C 100kHz
Dissipation factor (DF) : <0.1% 1KHz) at 23C
Testing Voltage : (can be customized design)
STP-02R : 1.2 x U_n 10sec 25C
STP-02QT, STP-02QL, STP-02QI : 1.6 x U_n 10sec 25C
Insulation Resistance : Terminal – Terminal : 15000M ohm 1kVdc 60sec
Terminal – Case : 5000M ohm 1kVdc 60sec
Operate Temperature :
STP-02R : -25~70C / -25~80C
STP-02QT, STP-02QL and STP-02QI : -25~80C / -40~100C

Options :
Thermocouple can be build-in :
- capacitor internal temperature can be measured
- output temperature signal can be used as one of reference signals in the circuit and trigger other function

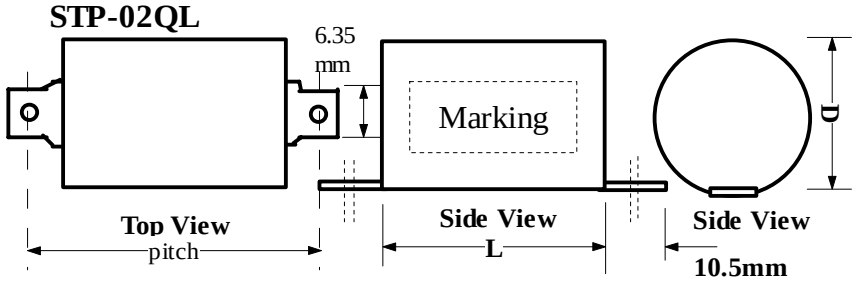
Energy Storage Capacitor - STP-02QT and STP-02QL series

- large Terminals to deliver larger discharge current Ipp and Ir.m.s. when compare with traditional copper tin wires
- for Welding Equipment and power supply application

STP-02QT



STP-02QL



Dimension and standard value : 450Vdc / 280Vac at 70C +/- 1mm

Capacitance uF	Diameter D mm	Length L mm	STP-02QT pitch mm	STP-02QL pitch mm	I.R in Mohm 100V	ESR 100KHz mohm	dv/dt V/us	Peak Pulse Current A 70C	r.m.s. Current A 70C
2.0uF	22.5	37.5	38.5	51.5	600,000	3.1	90	180	10A
2.2uF	23.5	37.5	38.5	51.5	600,000	3.0	90	198	10A
2.5uF	24.5	37.5	38.5	51.5	600,000	3.0	90	225	10A
3.0uF	26	37.5	38.5	51.5	600,000	3.0	90	270	10A
4.0uF	31.5	37.5	38.5	51.5	600,000	2.9	90	360	10A
6.0uF	37	37.5	38.5	51.5	600,000	2.9	90	540	12A
6.8uF	38.5	37.5	38.5	51.5	600,000	2.5	90	621	12A
8.0uF	43	37.5	38.5	51.5	600,000	2.2	90	720	12A
9.0uF	44.5	37.5	38.5	51.5	600,000	2.2	90	810	12A
10.0uF	38	49	50	63	400,000	2.3	70	700	13.5A
12.0uF	41.5	49	50	63	400,000	2.3	70	840	13.5A
15.0uF	45	49	50	63	400,000	2.0	70	1050	13.5A
17.0uF	47	49	50	63	400,000	2.0	70	1190	13.5A
20.0uF	52	49	50	63	400,000	1.8	70	1400	13.5A

Dimension and standard value : 600Vdc / 330Vac at 70C

Capacitance uF	Diameter D mm	Length L mm	STP-02QT pitch mm	STP-02QL pitch mm	I.R in Mohm 100V	ESR 100KHz mohm	dv/dt V/us	Peak Pulse Current A 70C	r.m.s. Current A 70C
2.0uF	22.5	38.5	39.5	52.5	600,000	3.1	120	240	11A
2.2uF	23.5	38.5	39.5	52.5	600,000	3.0	120	264	11A
2.5uF	24.5	38.5	39.5	52.5	600,000	3.0	120	300	11A
3.0uF	26	38.5	39.5	52.5	600,000	3.0	120	360	11A
4.0uF	31.5	38.5	39.5	52.5	600,000	2.9	120	480	11A
6.0uF	37	38.5	39.5	52.5	600,000	2.9	120	720	13.5A
6.8uF	38.5	38.5	39.5	52.5	600,000	2.5	120	816	13.5A
8.0uF	43	38.5	39.5	52.5	600,000	2.2	120	960	13.5A
9.0uF	44.5	38.5	39.5	52.5	600,000	2.2	120	1080	13.5A
10.0uF	39.5	48	49	62	400,000	2.3	100	1000	15A
12.0uF	43	48	49	62	400,000	2.3	100	1200	15A
15.0uF	47	48	49	62	400,000	2.0	100	1500	15A
17.0uF	50	48	49	62	400,000	2.0	100	1700	15A
20.0uF	54	48	49	62	400,000	1.8	100	2000	15A

For other Capacitance, Voltage and Peak Pulse Discharge Current not listed, please contact us for details.

Pulse Capacitor : **STP-03** and **STP-04** series

- medium Frequency range and higher r.m.s. Current
- is designed for 20~100kHz frequency

Application :

For Switching Power Supply input filtering, DC blocking and output filter, welding equipment, DC Filtering application.

Construction :

- Axial type with Tin Plated Copper lead or Terminals : wrapped with flame retardant tape and epoxy ends seal
- Box type : Terminal lead / Electrical Lead Wire / Tin plated Copper Lead Wire
- Dipped type

Providing different connections and mounting options so as to increase your design flexibility

Properties :

Medium Frequency range and RMS Current Capacity; Low ESR, D.F. & dielectric loss; High Insulation Resistance; low Inductance; both AC and DC voltage; Flame Retardant Construction; Easy Installation

Electrical Connecting :

Large Terminals - to deliver larger discharge current Ipp and Ir.m.s. when compare with traditional copper tin wires

Electrical Characteristic :

STP-03QI / STP-03QL / STP-03QT – higher RMS current
Rated Voltage : 100 ~ 400Vdc / 70 ~ 250Vac
STP-04QI / STP-04QL / STP-04QT – smaller size & higher voltage range
Rated Voltage : 250 ~ 700Vdc / 160 ~ 400Vac
Capacitance range : 1uF ~ 30uF
Capacitance Tolerance : ±5%; ±10%
Equivalent Series Resistance (ESR) : measured at 25C 100kHz
Dissipation factor (DF) : <0.1% 1KHz) at 23C
Testing Voltage : 2 x U_n 60sec 25C (can be customized design)
Insulation Resistance : Terminal – Terminal : 300,000M ohm 500Vdc 60sec
Terminal – Case : 5000M ohm 500Vdc 60sec
Operate Temperature : -25~105C
Full rated voltage at 85C, derate linearly to 50% rated voltage at 105C.

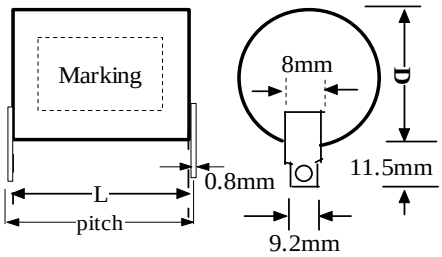
Pulse Voltage rise & fall time dV/dt : detail information available on request

Options :

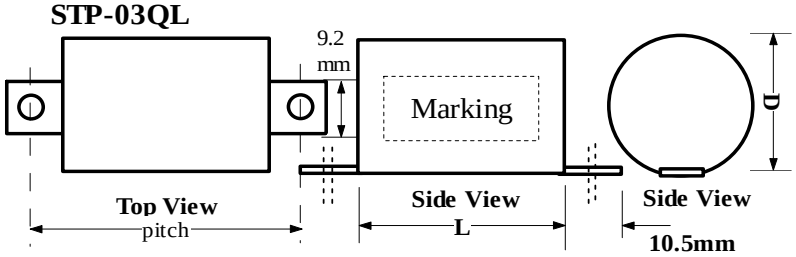
Thermocouple can be build-in :

- capacitor internal temperature can be measured
- output temperature signal can be used as one of reference signals in the circuit and trigger other function

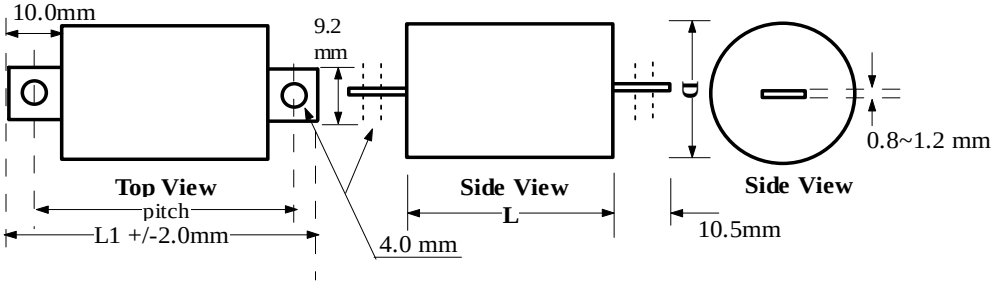
STP-03QT



STP-03QL



STP-03QI



Dimension Tolerance : +/-1mm unless specify

Pulse Capacitor - STP-03QI

Dimension and standard value : 100Vdc / 75Vac

Capacitance uF	Diameter D mm	Capacitor Length L mm	Total Length L1 mm	I rms A							Peak Pulse Current A	Max. dv/dt V/us	Max. ESR @ 100KHz mohm 90C
				+25C	+45C	+55C	+65C	+75C	+85C	+90C			
1.0 uF	15	29	48	11	9.9	8.9	8.0	6.5	5.2	4.4	22	22	15
2.0 uF	18	31	50	12.5	11.3	10.1	9	7.2	6.4	5.5	38	19	12
2.2 uF	20	31	50	13	11.7	10.5	9.3	7.4	6.6	5.6	41	19	12
3.0 uF	21	36	55	13.5	12.2	10.9	9.8	8.8	7.7	6.5	45	15	11
3.3 uF	22.5	36	55	14	12.4	11.2	10.2	9.0	7.9	6.7	49.5	15	11
5.0 uF	25.5	36	55	15.5	13.1	11.8	10.6	9.6	8.6	7.5	75	15	10
10.0 uF	26.5	40	59	18	15.3	13.7	12.3	11.2	10.0	8.5	100	10	9
20.0 uF	33	50	69	23	19.5	17.5	15.8	14.2	12.8	11	140	7	8
30.0 uF	39	50	69	25	21.2	19.1	17.2	15.4	13.9	12.2	210	7	6

Dimension and standard value : 200Vdc / 140Vac

Capacitance uF	Diameter D mm	Capacitor Length L mm	Total Length L1 mm	I rms A							Peak Pulse Current A	Max. dv/dt V/us	Max. ESR @ 100KHz mohm 90C
				+25C	+45C	+55C	+65C	+75C	+85C	+90C			
1.0 uF	18	31	50	8	8	8	8	8	6.8	5.4	15	15	20
2.0 uF	21.5	36	55	14.5	12.3	11	9.9	9	8.1	7.2	22	11	15
2.2 uF	22.5	36	55	15	12.7	11.5	10.3	9.2	8.3	7.3	24.2	11	15
3.0 uF	26	36	55	16	13.6	12.2	11	9.9	8.9	7.5	33	11	13
3.3 uF	27	36	55	16.5	14.8	13.3	12	10.8	9.6	7.7	36.3	11	13
5.0 uF	33	36	55	19	16.2	14.5	13	11	10	8.5	55	11	11
10.0 uF	37.5	48	67	22.5	19	17	15.5	13.9	12.5	10.6	100	10	9
20.0 uF	44.5	63	84	28	23.8	21	18.9	16	14.5	13	140	7	6

Dimension and standard value : 400Vdc / 270Vac

Capacitance uF	Diameter D mm	Capacitor Length L mm	Total Length L1 mm	I rms A							Peak Pulse Current A	Max. dv/dt V/us	Max. ESR @ 100KHz mohm 90C
				+25C	+45C	+55C	+65C	+75C	+85C	+90C			
1.0 uF	19.5	36	55	9.5	9.5	9.5	9.5	8.3	7.5	6.7	20	20	18
2.0 uF	22	48	67	15	15	15	14.2	12.4	10.5	8.5	32	16	15
2.2 uF	22.5	48	67	15.5	15.5	15.5	14.7	12.9	11	9.0	35	16	15
3.0 uF	26	48	67	21	17.8	16	15.2	13.7	11.6	9.6	48	16	11
3.3 uF	27	48	67	21.5	18	16.4	15	13.8	12.4	9.8	52	16	11
5.0 uF	28	63	84	24.4	20.7	18.6	16.7	15	13.5	11.5	55	11	8
10.0 uF	40	63	84	30	25.5	22.9	20.5	18.5	16.6	14.5	110	11	6

For other Capacitance, Voltage, r.m.s. Current and Peak Pulse Current not listed, please contact us for details.

Pulse Capacitor - STP-04QI

Dimension and standard value : 250Vdc / 160Vac

Capacitance uF	Diameter D mm	Capacitor Length L mm	Total Length L1 mm	Max. ESR @ 100KHz mohm	Max. dv/dt V/us	Peak Current A	Irms 70C 100kHz A
1	11.5	20	41	2.4	99	99	5.4
1.5	10.5	32	53	4.9	55	82.5	7.1
2.2	11.5	32	53	3.3	55	121	9.1
2.5	12.5	32	53	3	55	138	9.1
3	14	32	53	2.6	55	165	9.1
5	17.5	32	53	1.9	55	275	9.7
6.8	20.5	32	53	1.6	55	374	9.7
10	20.5	43	64	1.9	33	330	9.7
15	25	43	64	1.4	33	495	13.2
20	28.5	43	64	1.3	33	660	13.2
25	32	43	64	1.3	33	825	13.2
30	30	56	77	2.3	22	660	13.2

Dimension and standard value : 400Vdc / 250Vac

Capacitance uF	Diameter D mm	Capacitor Length L mm	Total Length L1 mm	Max. ESR @ 100KHz mohm	Max. dv/dt V/us	Peak Current A	Irms 70C 100kHz A
0.68	10.5	32	53	6.7	77	53	6.1
1	12.5	32	53	4.6	77	77	8.1
1.5	15	32	53	3.2	77	116	9.1
2	17	32	53	2.6	77	154	9.7
2.2	18	32	53	2.5	77	169	9.7
2.5	19	32	53	2.3	77	193	9.7
3	20.5	32	53	2.1	77	231	9.7
4	20	43	64	2.7	55	220	9.7
4.7	21.5	43	64	2.4	55	259	10.8
5	22	43	64	2.3	55	275	10.8
6.8	25.5	43	64	1.9	55	374	13.2
10	30.5	43	64	1.6	55	550	13.2
15	32.5	56	77	2.8	33	495	13.2

Dimension and standard value : 600Vdc / 330Vac

Capacitance uF	Diameter D mm	Capacitor Length L mm	Total Length L1 mm	Max. ESR @ 100KHz mohm	Max. dv/dt V/us	Peak Current A	Irms 70C 100kHz A
1	16	32	53	3.8	110	110	9.7
2	19	43	64	3.7	83	166	9.7
2.2	20	43	64	3.5	83	183	9.7
3	23	43	64	2.8	83	249	10.8
4.7	28	43	64	2.1	83	390	13.2
5	29	43	64	2	83	415	13.2
6.8	29	56	77	4.1	55	374	13.2
10	35	56	77	3.2	55	550	13.2

Dimension and standard value : 700Vdc / 400Vac

Capacitance uF	Diameter D mm	Capacitor Length L mm	Total Length L1 mm	Max. ESR @ 100KHz mohm	Max. dv/dt V/us	Peak Current A	Irms 70C 100kHz A
0.68	17.5	32	53	4.1	138	94	9.7
1	21	32	53	3.1	138	138	10.8
1.5	21	43	64	3.8	99	149	10.8
2	24	43	64	3	99	198	13.2
2.2	25	43	64	2.8	99	218	13.2
3	29	43	64	2.3	99	297	13.2
4	33.5	43	64	2	99	396	13.2
4.7	30	56	77	4.7	66	310	13.2
5	31	56	77	4.4	66	330	13.2

Snubber Capacitor, Energy Storage Capacitor and Pulse Capacitor – Part Number :

ST P-01 _ - _ _ _ -_ _ _ _ _

1 2 3 4 5 5 5 6 7

1 : series designation

ST

2 : basic design

P-01: Snubber Capacitor
P-02: Energy Storage Capacitor / Pulse Grade Capacitor
P-03: Pulse Current Capacitor – higher RMS current
P-04: Pulse Capacitor – higher voltage and smaller size

3 : Capacitor Configuration :

A : Axial Cylindrical plastic case with epoxy seal at both ends - with Screw Nut M8 etc at both ends
AL : Axial Cylindrical plastic case with epoxy seal at both ends - Tin Plated Copper Lead Wires at both ends
R : Cylindrical plastic case – with Terminal or Electrical Lead Wire. Configuration STR see P5.
RC : Cylindrical - plastic case or wrapped with flame-retardant tape : epoxy end seal at one end–with Tin plated Copper lead for PCB mount
RN : Cylindrical plastic case - Screw Nuts at one ends
RT : Cylindrical plastic case–Screw Threads at one ends
Q : axial lead Cylindrical type wrapped with flame-retardant tape and epoxy ends seal + Tin plated Copper leads
QA : axial lead Oval sharp wrapped with flame-retardant tape and epoxy ends seal + Tin plated Copper leads
QE : axial lead Cylindrical with flame-retardant tape wrapped and epoxy end seals + Electrical Lead wires
QT : Cylindrical type wrapped with flame-retardant tape and epoxy ends seal + TERMINALS at both ends
QL : Cylindrical type wrapped with flame-retardant tape and epoxy ends seal + TERMINALS at both ends
QI : Cylindrical with flame-retardant tape wrap and epoxy end seals + TERMINALS at both ends
B : box type with Terminals
BN : Box type with screw Nuts at one end
BT : Box type with Screw Threads at one end
BC : box type with Tin plated Copper Lead Wires
BL : box type with electrical lead wires
D : epoxy dipped type – small capacitance value only

4 : capacitance

104 : 0.1uF
105 : 1uF
106 : 10uF

5 : voltage

180, 250, 270, 380, 400, 450, 500, 600, 660, 900, 1000, 1200, 1600

6 : A : ac voltage
D : dc voltage
DP : dc peak voltage
R : r.m.s. voltage

7 : tolerance

J : ±5% K : ±10%

RC Snubber Network : - **STRC** series

Application :

Interference suppression; elimination of spark and transient phenomena in power switch and relay; arc suppressing for industrial heavy duty application; electrical automation control, starting, stopping, regulating or protecting electric motors

Transient and dV/dt suppression for power Thyristor and Triacs in snubber circuit

Fan Speed Regulator and Motor Speed Regulator

Suitable for AC and DC voltage application

Construction :

Box, Plastic Cylindrical or Axial Plastic case : self-extinguishing (UL-94V0 grade) plastic

Optional : Thermoplastic Plastic Case – so that the capacitor can be operated at a higher temperature range and harsh working environment

Epoxy Resin : self-extinguishing (UL-94V0 grade)

Electrical Connecting :

Flexible wire

Flexible wire with receptacle, terminal or connector

Tin plated copper lead wire

Tab Terminal (see P4 & P7)

providing different connections and mounting options so as to increase your design flexibility

Mounting system :

Cylindrical Plastic Case : with Stud - M8 or without Stud (see P.4)

Box Plastic Case: Screw mounting hole / without Screw mounting hole(see p.7)

Electrical Characteristic :

Capacitance value : 0.1 ~ 2.0uF

Voltage : 125Vac, 220Vac, 240Vac, 480Vac, 600Vac

Resistance and rate power of the Resistor : customer design, 1/4W ~ 100W

Operating temperature : -25 ~ 70C / -40 ~ 85C / -40 ~ 100C / -40 ~ 110C

Testing Voltage : : 1.5 x U_n 10sec (can be customized design)

Varistor options available

Circuit :

connection for Resistor and Capacitor : series, parallel or three phase

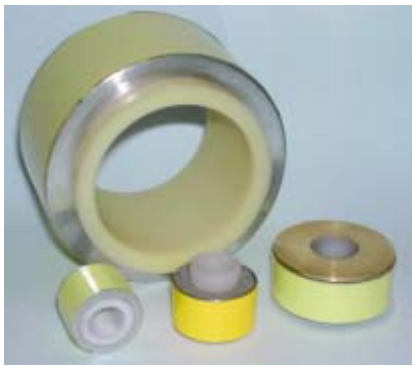
The combination of Capacitance value, Voltage, Resistor type, Resistance, Power Rating and Dimension, please contact us for a design suited to your particular needs.

Feed Through Capacitor : - STF-series

Application :

High Frequency and High Current AC, DC filter circuit

EMC Filter application



Specification :

- high feed through current capacity
- Contact Surface Area : reinforced, flat and even design
- large contact surface area
- can withstand stronger external force
- low ESR and ESL
- high Insulation Resistance
- not easy to oxidation – lower contact resistance
- will not flashover on the contact surfaces
- Solderable

Construction :

-wrap with flame-retardant tape + strong Contact Surface Area

Electrical Characteristic :

Capacitance : 0.1uF ~ 20uF

Tolerance : ±10%, ±5% at 23C 1kHz

Voltage : AC & DC is available,
48Vac ~ 1200Vac
100Vdc ~ 3000Vdc

Testing Voltage :

– DC Voltage : 1.6 x U_n 60sec (can be customized design)

– AC Voltage : according to EN132400 (can be customized design)

– according to X1, X2, Y1 and Y2

Temperature range : -25 ~ 70C / -40 ~ 85C (full voltage rating)

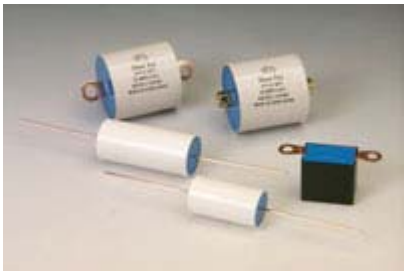
Pulse Voltage rise & fall time dV/dt : detail information available on request.

The combination of Capacitance value and Voltage or should there be a Dimensional constraint, please contact us for a design suited to your particular needs.

High Power Filter Capacitor : - **STFC**-series

Application :

High Frequency and Current AC, DC filter circuit; act as discharge capacitor to trigger laser or energy storage function, EMC Filter application



Electrical Connecting and Mounting:

- high current carrying capacity construction
- copper terminal tab
- copper M4, M6 and M8 screw nut
- Contact Surface Area : reinforced, flat and even design

Construction :

-Axial Thermoplastic case with Epoxy Resin end sealed : so that the capacitor can be operated at a higher temperature range and harsh working environment (all plastic parts and epoxy resin being used are self-extinguishing UL94V-0 grade)

Electrical Characteristic :

Capacitance : customer design

Tol : ±10%, ±5% at 23C 1kHz

Voltage : customer designed, AC & DC is available

Testing Voltage :

– DC Voltage : 1.6 x U_n 60sec (can be customized design)

– AC Voltage : according to EN132400 (can be customized design)

Low ESR and ESL

High Current carrying capacity

Thermoplastic case pot with UL90V-0 epoxy – so that the capacitor can be operated at a higher temperature range and harsh working environment

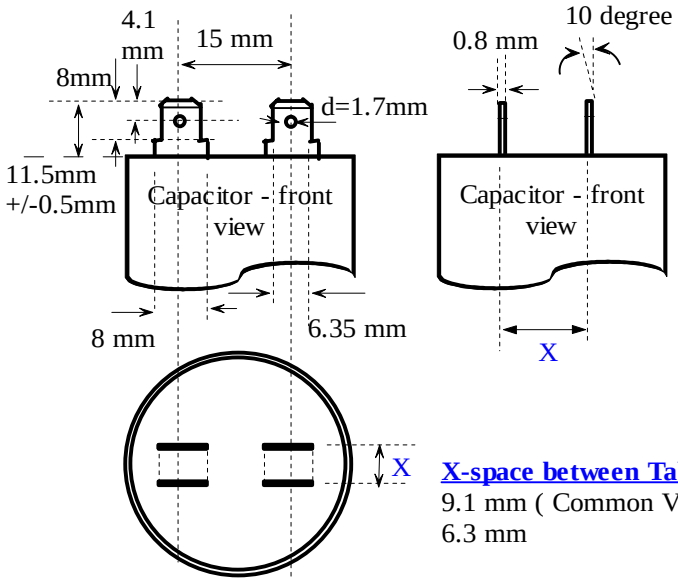
Temperature range : -55 ~ 85C (full voltage rating)

Pulse Voltage rise & fall time dV/dt : detail information available on request

The combination of Capacitance value and Voltage or should there be a Dimensional constraint, please contact us for a design suited to your particular needs.

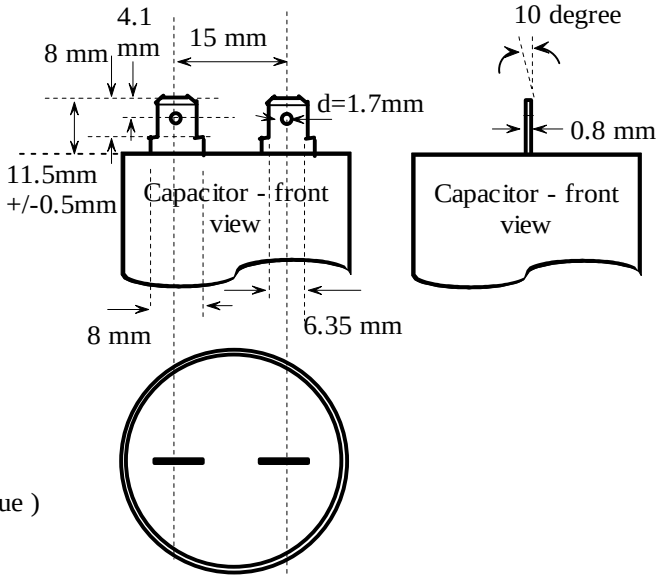
Cylindrical Capacitor Tab Terminals Size and Drawing :

1) 250 type standard DQC Tab Terminal : 250D+X

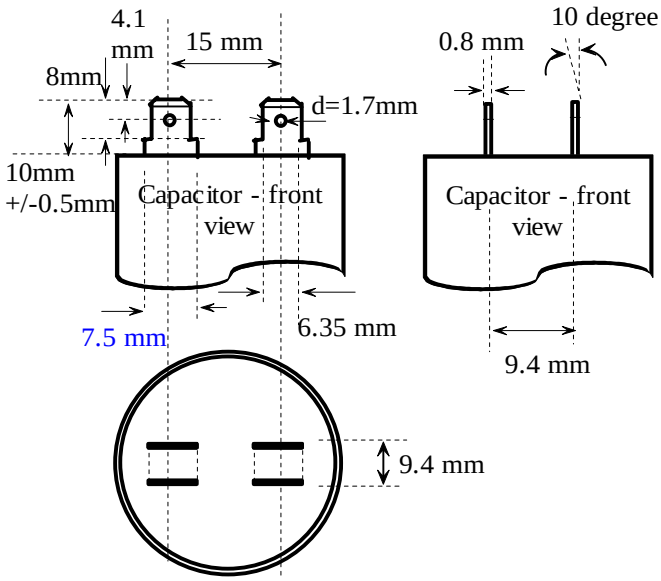


X-space between Tab
9.1 mm (Common Value)
6.3 mm

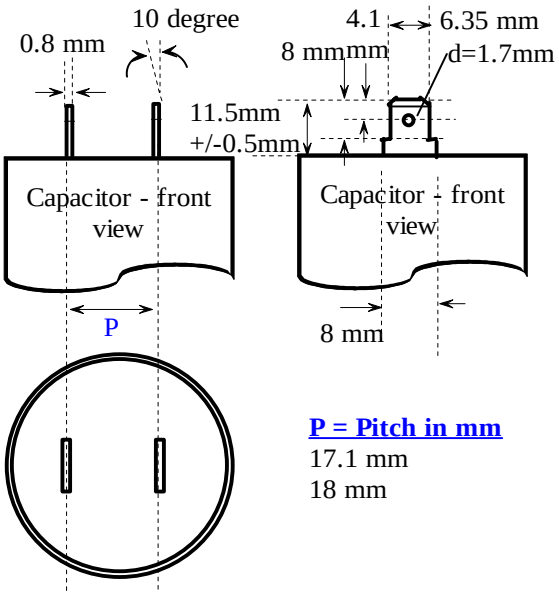
3) 250 type single Tab Terminal : 250S1



2) 9.4 + 6.35mm DQC Tab Terminal : 250D+9.4

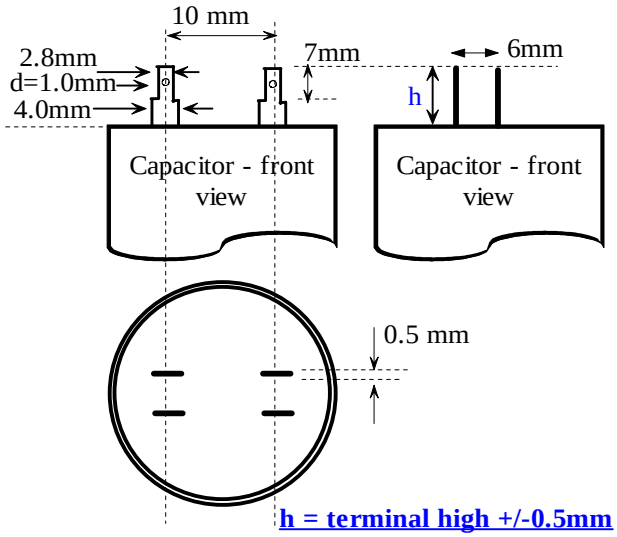


4) 250 type single Tab Terminal : 250S+P



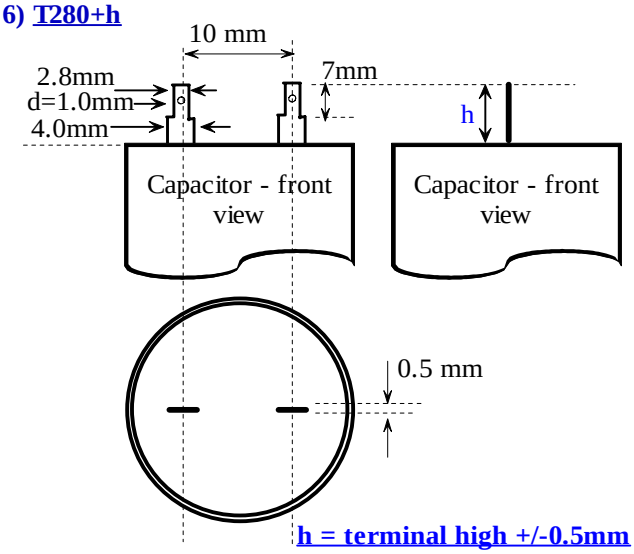
P = Pitch in mm
17.1 mm
18 mm

5) T280D+h



h = terminal high +/-0.5mm
12.5 mm (common value)
8.5 mm

6) T280+h



h = terminal high +/-0.5mm
12.5 mm (common value)
8.5 mm

Electrical Connecting Options :

Terminal Receptacle – can be applied to most of the capacitors

TR-1 ~ TR-3 for Terminal : 250 : W6.35 x H10 x 0.8mm (250 Faston)

TR-4 for Terminal : 187 : W4.75 x H10 x 0.5mm

TR-1

TR-2

TR-3

TR-4

PT-1

YT-1

YT-2

YT-3

RT-1

T-1

Size : M5 M6 M8 M10 M12

There are some other connectors can be used with our capacitors so as to increase your design flexibly.

Information Request Form :

Please complete the form below as much detail as possible and send the form to Our Sales Department by pressing the "Submit" button at the bottom of the page.

Name : _____ Title : _____

Company : _____

Business : Manufacturer( ) Trading( ) Sales Agent( ) End user( ) Department : _____

Address : _____

Country : _____ Post Code / Zip : _____ Web : _____

Telephone : _____ Fax : _____E-mail : _____

How did you learn our company? _____

Information require : Quotation ( ) Specification sheet ( ) Catalogue ( )

Message : _____

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