

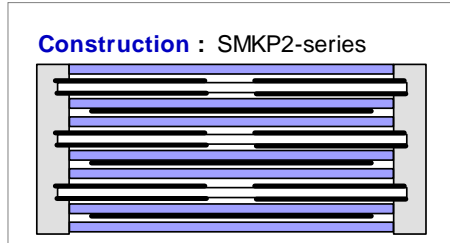
1.1.3 Snubber Capacitors – IGBT SMKP2 series

Applications :

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

Construction :

- Low inductance construction
- Flame retardant plastic case and Epoxy Resin UL94-V0
- High Current carrying capacity Tinned Terminals for direct mounting the capacitor to IGBT module
- other Terminals also available



Electrical Characteristics :

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 : $1.6 \times U_r$ Vdc 60s +85C / +105C
 Terminals to Case : 5kVac at 50Hz 60s

Dissipation Factor : $< 5 \times 10^{-4}$ at 1kHz +25C

Rated Temperature : -20C ~ +85C / -40 ~ +105C

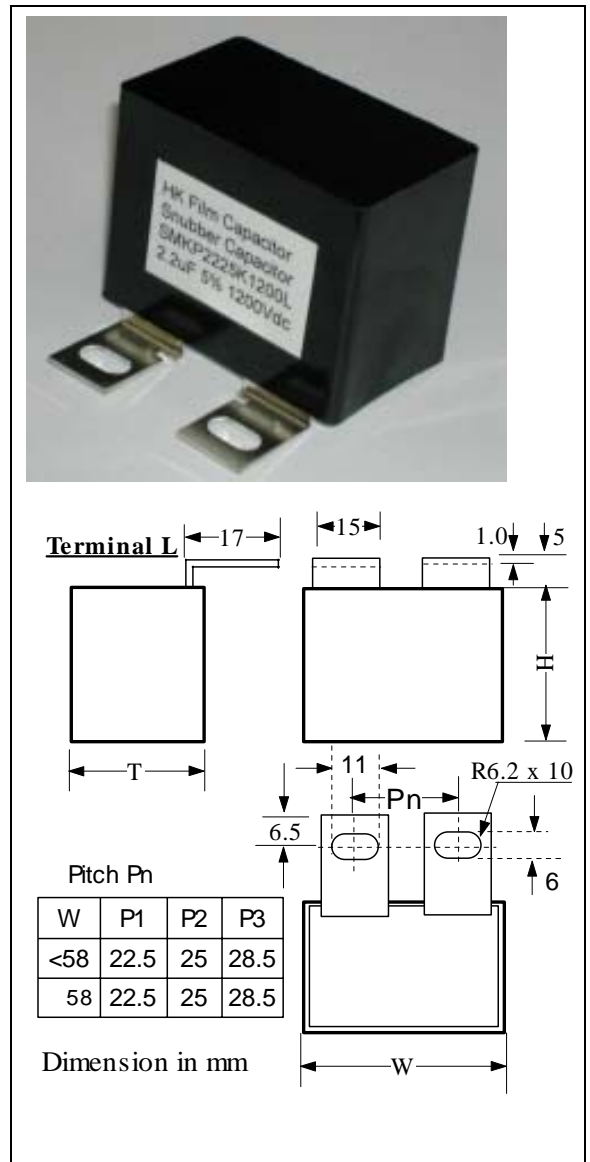
Service Life : 30,000 hours at rated Vac 70C
 60,000 hours at rated Vdc 70C

Accelerated Life : 1.25 x rated Vac at 85C for 3,000 hours
 1.25 x rated Vac at 105C for 2,000 hours

Equivalent Series Resistance ESR : see item table

Equivalent Series Inductance ESL : < 22 nH

Insulation Resistance : at +25C 500Vdc 1minute.
 $C < 0.33\mu\text{F}$: $> 150,000$ ohm
 $C > 0.33\mu\text{F}$: $> 50,000$ ohm



Specifications and Size :

Part Number	Cap	Voltage		dV/dt V/us	Ipeak A	ESR 100kHz 25C m ohm	Irms 55C A	Dimension mm +/-1mm
	uF	Vdc	Vac					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.