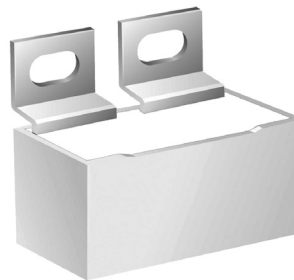


Metallized Polypropylene Film Capacitor (Plastic Case) Snubber Application (Lug Terminal)

SLE

The SLE series is a polypropylene metallized film and double sided metallized film with plastic box type casing filled with resin and lug terminal.



FEATURES

Low losses, high ripple current.

High capacitance density.

Self-healing property and high reliability.

Suitable for high frequency and snubber application.

APPLICATIONS

Energy conversion.

Power semiconductor circuits.

IGBT modules protection.

ELECTRICAL CHARACTERISTICS

Rated Voltage:	850Vdc ~ 2000Vdc
Capacitance range:	0.1 μ F - 5 μ F
Capacitance Tolerance:	$\pm 5\%$ (J), $\pm 10\%$ (K)
Dissipation Factor::	≤ 0.001 (0.1%) at 1kHz at 25°C
Test Voltage Between Terminal:	1.5 x rated voltage for 10s (terminal to terminal)
Test Voltage Terminals to Case:	3.0 kVac 50Hz/60Hz for 10s at 25 °C
Insulation Resistance:	IR x C $\geq 50,000$ s at 100Vdc 1 min at 25 °C
Life Expectancy:	100,000 hours at Un @ hot-spot temperature T=+85 °C
Damp Heat:	IEC 60068-2-78
Change of Temperature:	IEC 60068-2-14

GENERAL TECHNICAL DATA

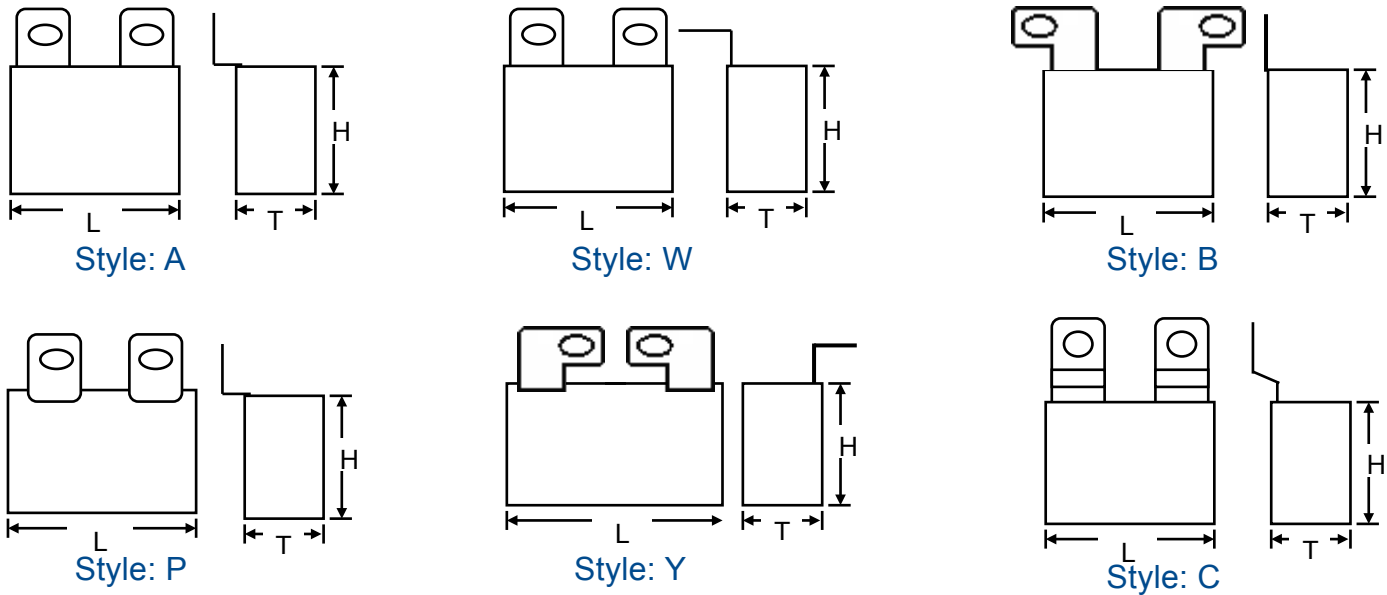
Application:	Snubber
Standard:	IEC 61071
Climatic Category:	40/85/21 IEC 60068-1
Maximum Operating Temperature:	+105°C
Upper Temperature T max:	+85°C
Lower Temperature T min:	-40°C
Protection:	Solvent resistant plastic case UL94 V-0, Thermo setting resin sealing UL 94 V-0 compliant
Terminals:	Tinned brass lugs
Packaging:	Packed in cardboard boxes with protection for the terminals
RoHS Compliant:	Compliant with the restricted substance requirements of Directive 2002/95/EC

Metallized Polypropylene Film Capacitor (Plastic Case)

Snubber Application (Lug Terminal)

SLE

DIMENSION



VOLTAGE DC/AC CROSS REFERENCE

NO.	Un (Vdc)	U _{RMS} (Vac)
1	850	550
2	1000	600
3	1200	630
4	2000	700

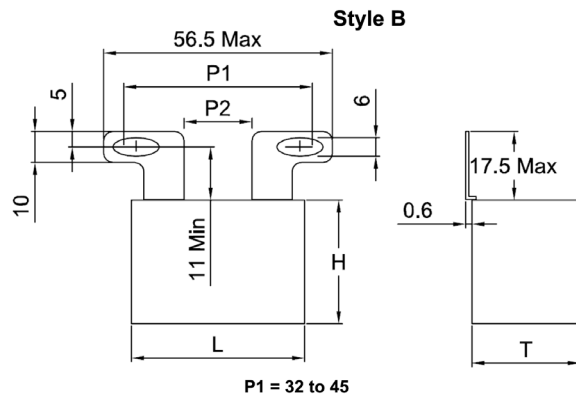
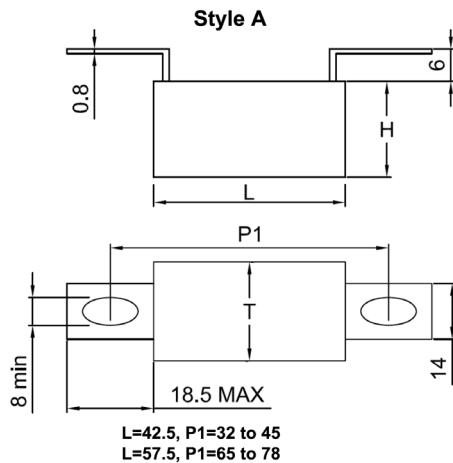
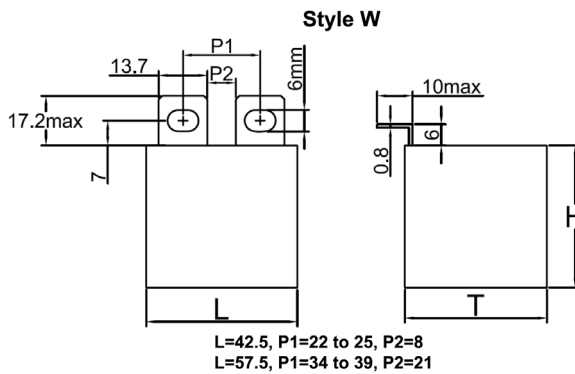
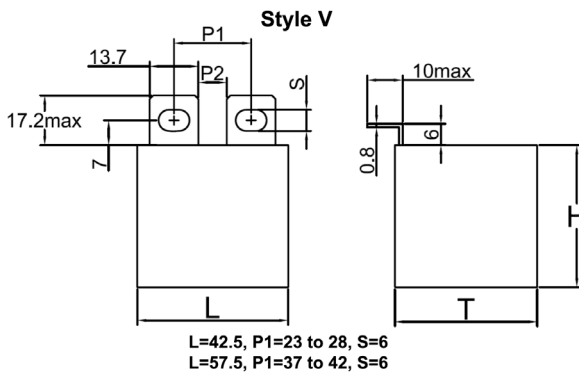
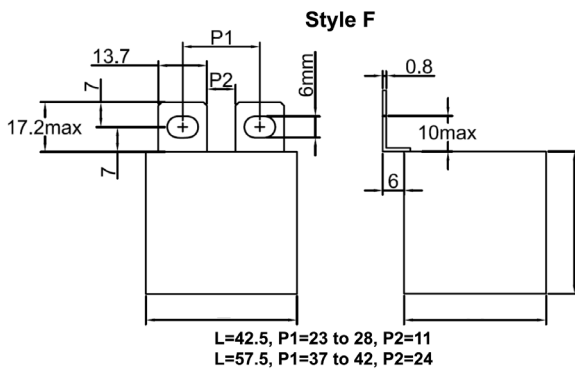
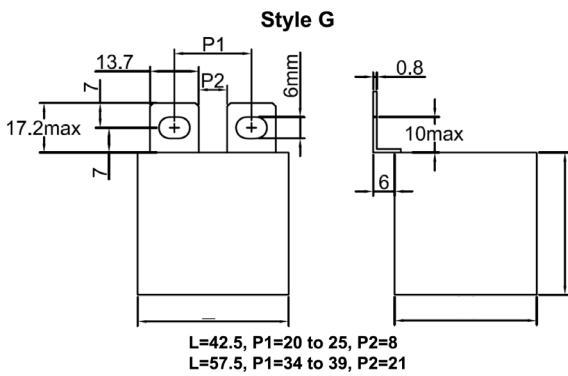
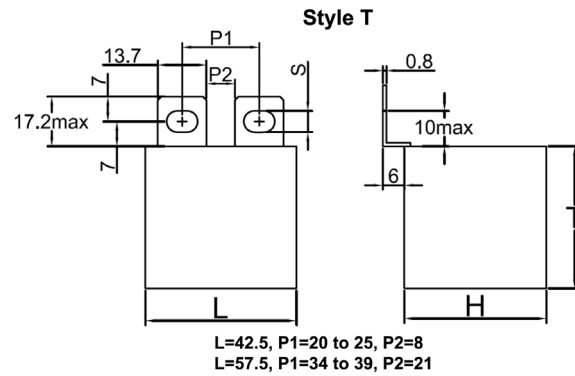
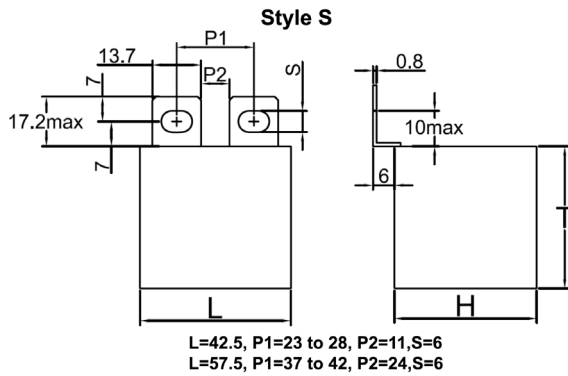
DIMENSION - Case (mm)

Case Code	L (±1)	H (±1)	T (±1)	Output (±0.2)
P41	42.5	45	30	M6/M8
P33	42.5	40	20	M6/M8
P30	42.5	35.5	33.5	M6/M8
P42	42.5	37	28	M6/M8
P61	42.5	44	24	M6/M8
W10	57.5	45	30	M6/M8
W20	57.5	50	35	M6/M8

Metallized Polypropylene Film Capacitor (Plastic Case) Snubber Application (Lug Terminal)

SLE

■ TERMINAL STYLE



Unit = Millimeter (mm)

Metallized Polypropylene Film Capacitor (Plastic Case)

Snubber Application (Lug Terminal)

SLE

DIMENSION (Part Number Reference)

Vdc	Cap	Dimensions			Irms@70°C	Peak	ESR _{Typical}	ESL	dv/dt	Pkg	Part Number
	Value	L	H	T	100KHz	Current	100KHz@70°C			Qty	
	uF	mm	mm	mm	A	A	mΩ			pcs	
850	0.47	42.5	40	20	14	357	9.4	40	760	65	SLE-474K2TN42SLAP33
850	0.68	42.5	40	20	17	517	6.6	40	760	65	SLE-684K2TN42SLAP33
850	1	42.5	40	20	20	760	4.6	40	760	65	SLE-105K2TN42SLAP33
850	1.5	42.5	37	28	27	1140	3.1	36	760	45	SLE-155K2TN42SLAP42
850	1.5	42.5	35.5	33.5	28	1140	3	36	760	28	SLE-155K2TN42SLAP30
850	2	42.5	45	30	34	1520	2.4	43	760	40	SLE-205K2TN42SLAP41
850	2.2	42.5	45	30	35	1672	2.2	43	760	40	SLE-225K2TN42SLAP41
850	2.5	57.5	45	30	37	1175	2	45	470	20	SLE-255K2TN57SLAW10
850	3	57.5	45	30	30	1410	3.5	45	470	20	SLE-305K2TN57SLAW10
850	3.3	57.5	45	30	31	1551	3.2	45	470	20	SLE-335K2TN57SLAW10
850	4	57.5	50	35	34	1880	2.6	48	470	15	SLE-405K2TN57SLAW20
850	5	57.5	50	35	40	2350	2.2	48	470	15	SLE-505K2TN57SLAW20
1000	0.47	42.5	40	20	14	400	8.7	40	850	65	SLE-474K3AN42SLAP33
1000	0.68	42.5	40	20	18	578	6.1	40	850	65	SLE-684K3AN42SLAP33
1000	1	42.5	40	20	20	850	4.3	40	850	65	SLE-105K3AN42SLAP33
1000	1.5	42.5	37	28	28	1275	2.9	36	850	45	SLE-155K3AN42SLAP42
1000	1.5	42.5	35.5	33.5	29	1275	2.8	36	850	28	SLE-155K3AN42SLAP30
1000	2	42.5	45	30	35	1700	2.3	43	850	40	SLE-205K3AN42SLAP41
1000	2.2	57.5	45	30	28	1166	4.4	45	530	20	SLE-225K3AN57SLAW10
1000	2.5	57.5	45	30	29	1325	3.8	45	530	20	SLE-255K3AN57SLAW10
1000	3	57.5	45	30	31	1590	3.2	45	530	20	SLE-305K3AN57SLAW10
1000	3.3	57.5	45	30	32	1749	3	45	530	20	SLE-335K3AN57SLAW10
1000	4	57.5	50	35	38	2120	2.5	48	530	15	SLE-405K3AN57SLAW20
1200	0.33	42.5	40	20	13	330	10.9	40	1000	65	SLE-334K3MN42SLAP33
1200	0.47	42.5	40	20	16	470	7.7	40	1000	65	SLE-474K3MN42SLAP33
1200	0.68	42.5	40	20	19	680	5.4	40	1000	65	SLE-684K3MN42SLAP33
1200	1	42.5	37	28	25	1000	3.8	36	1000	45	SLE-105K3MN42SLAP42
1200	1.2	42.5	37	28	27	1200	3.2	36	1000	45	SLE-125K3MN42SLAP42
1200	1.2	42.5	35.5	33.5	28	1200	3	36	1000	28	SLE-125K3MN42SLAP30
1200	1.5	42.5	45	30	32	1500	2.6	43	1000	40	SLE-155K3MN42SLAP41
1200	2	57.5	45	30	27	1200	4.1	45	600	20	SLE-205K3MN57SLAW10
1200	2.2	57.5	45	30	28	1320	3.8	45	600	20	SLE-225K3MN57SLAW10
1200	2.5	57.5	45	30	30	1500	3.3	45	600	20	SLE-255K3MN57SLAW10
1200	3	57.5	50	35	35	1800	2.9	48	600	15	SLE-305K3MN57SLAW20
1200	3.3	57.5	50	35	38	1980	2.6	48	600	15	SLE-335K3MN57SLAW20
2000	0.1	42.5	40	20	8	140	26.8	40	1400	65	SLE-104K3DN42SLAP33
2000	0.15	42.5	40	20	10	210	17.9	40	1400	65	SLE-154K3DN42SLAP33
2000	0.22	42.5	40	20	12	308	12.3	40	1400	65	SLE-224K3DN42SLAP33
2000	0.33	42.5	40	20	16	462	8.3	40	1400	65	SLE-334K3DN42SLAP33
2000	0.47	42.5	40	20	19	658	5.9	40	1400	65	SLE-474K3DN42SLAP33
2000	0.68	42.5	44	24	24	952	4.1	43	1400	50	SLE-684K3DN42SLAP61
2000	0.68	42.5	35.5	33.5	25	952	4	43	1400	28	SLE-684K3DN42SLAP30
2000	0.82	42.5	45	30	28	1148	3.5	43	1400	40	SLE-824K3DN42SLAP41
2000	1	57.5	45	30	23	900	5.9	45	900	40	SLE-105K3DN57SLAW10
2000	1.2	57.5	45	30	25	1080	4.9	45	900	20	SLE-125K3DN57SLAW10
2000	1.5	57.5	50	35	30	1350	4	48	900	15	SLE-155K3DN57SLAW20

Metallized Polypropylene Film Capacitor (Plastic Case) Snubber Application (Lug Terminal)

SLE

PART NUMBERING SYSTEMS

■ EXPLANATION OF ARTICLE CODE

S L E -	1 0 5	K	2 T	N	4 2	S	L
①	②	③	④	⑤	⑥	⑦	⑧

① Capacitor Type

TYPE	SLE
CODE	SLE-

② Rated Capacitance (EIA Code)

The rated Capacitance value of the product is indicated with three digits. The first two digits indicate the two most significant digits of the capacitance value, and the third digit gives the number of following zeroes. This gives the capacitance value expressed in picofarads.

Examples:

105	=	1,000,000pF	=	1,000nF	=	1uF
106	=	10,000,000pF	=	10,000nF	=	10uF

③ Capacitance Tolerance

TOLERANCE	±5%	±10%	±20%
CODE	J	K	M

④ Rated Voltage

Vdc	800V	850V	1000V	1200V	2000V
CODE	2K	2T	3A	3M	3D

⑤ Lead Configuration

"N" Said: Lug Terminal

⑥ Case Length (mm)

CASE LENGTH	42.5	57.5
CODE	42	57

⑦ Terminal Configuration

Lug Style	Style	Style	Style	Style	Style	Style
CODE	S	W	B	P	Y	C

⑧ Terminal

P1	23-28	24-26	29-39	20-25	21-23	33-42	33-45	17.5-28.5
P2	11	11	11	8	8	8	15	6
OUTPUT	M6	M6	M6	M6	M6	M6	M6	M6
CODE	L	A	B	C	D	E	F	G

P1	37-39	36-41	49-58	46-58	53-62
P2	11	11	11	11	11
OUTPUT	M6	M6	M6	M6	M6
CODE	J	H	K	M	N

Metallized Polypropylene Film Capacitor (Plastic Case) Snubber Application (Lug Terminal)

SLE

PART NUMBERING SYSTEMS

■ PERFORMANCE NOTES

Rs: Equivalent series resistance - Ohmic resistances (Ohm)

Dielectric Dissipation Factor: $\tan\delta$ (Polypropylene: 0.0002)

Ta: Ambient temperature

Rth: Thermal resistance °C/W, indicates hot spot temperature rise due to power dissipation losses

Pj: Joule losses $P_j = R_s \cdot I_{rms}^2$

Pd: Dielectric losses

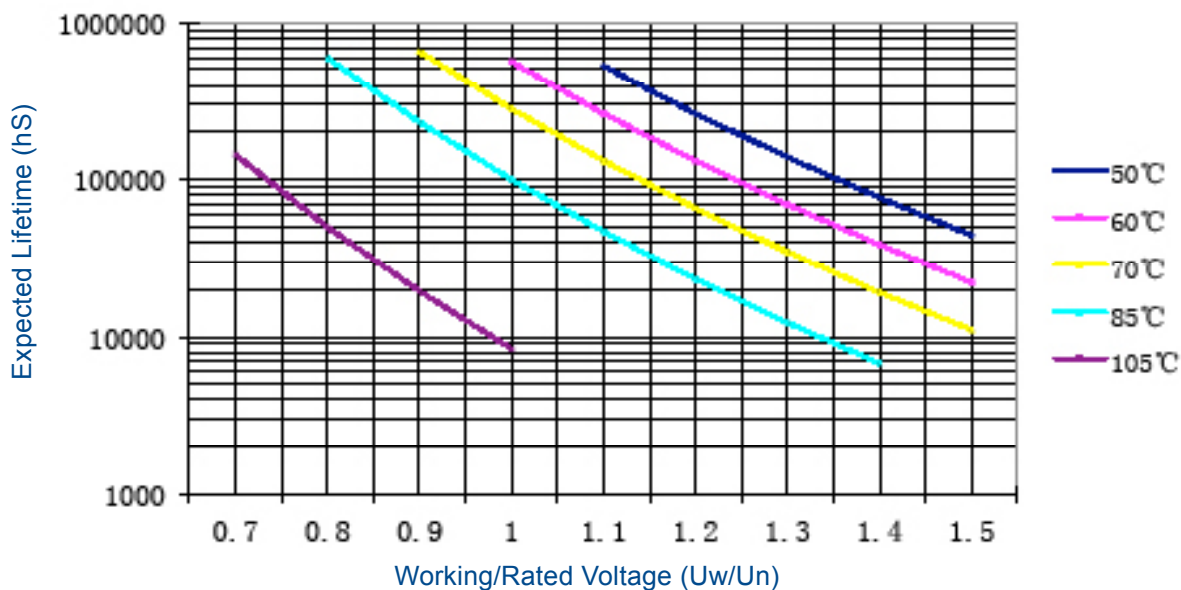
$$P_d = X_c \cdot I_{rms}^2 \cdot \tan\delta = I_{rms}^2 / (2 \cdot \pi \cdot f \cdot C) \cdot \tan\delta$$

Ths: Hot spot temperature within the capacitor

$$T_{hs} = T_a + (P_j + P_d) \cdot R_{th}$$

Design life: 100,000 hours at Un @ Hot-Spot temperature $\leq +85^\circ\text{C}$

Expected Life Curve



■ CAUTIONS AND WARNING

- Don't exceed the upper category temperature.
- For longtime storage, maximum relative humidity 80%, no dew allowed on the capacitor.
- Do not use or store capacitor in corrosive atmosphere, in the dusty environments regular maintenance and cleaning especially of the terminals is required to avoid conductive path between terminal / or terminal and ground.
- Don't apply any mechanical stress to the capacitor terminals, and avoid any compressive, tensile or flexural stresses.
- Don't move the capacitor after soldered to the PC board, and don't pick up the PC board by soldered capacitor.
- Don't place the capacitor on a PC board whose holes pitch differs from the specified space.
- Avoid overload of the capacitors
- Do not have unlimited service life expectancy, the max service life expectancy may vary depending on the application the capacitor is used in.