

STB-LC-S59B ~ STB-LC-S520

SURFACE MOUNT LOW CAPACITANCE TRANSIENT VOLTAGE SUPPRESSOR

Stand-off Voltage : 8 ~ 17 V

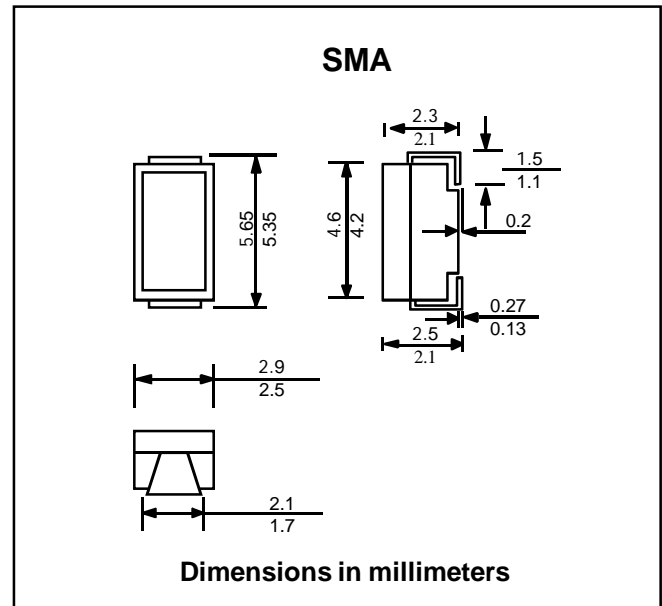
Peak Pulse Power : 500 W

FEATURES :

- * Bi-directional transient voltage suppressor
- * 500W surge capability at 1ms
- * Excellent clamping capability
- * Low junction capacitance
- * Fast response time : typically less than 1.0 ps from 0 volt to $V_{BR(min.)}$
- * Pb / RoHS Free

MECHANICAL DATA

- * Case : SMA Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Mounting position : Any
- * Weight : 0.064 grams



MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Units
Peak Power Dissipation at $T_a = 25\text{ °C}$, $T_p=1\text{ms}$ (Note1)	P_{PK}	Minimum 500	W
Steady State Power Dissipation at $T_L = 75\text{ °C}$ (Note 2)	P_D	3.0	A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 175	°C

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type No.	Breakdown Voltage ⁽³⁾ @ I_T		Reverse Stand-off Voltage V_{RWM}	Maximum Reverse Leakage @ V_{RWM} I_R (μA)	Maximum Peak Pulse Surge Current I_{PPM} (A)	Maximum Clamping Voltage @ I_{PPM} V_C (V)	Maximum Junction Capacitance @ 0 Volt (pF)	
	V_{BR} (V)	I_T (mA)						
	Min.	Max.	(V)	(μA)	(A)	(V)	(pF)	
STB-LC-S59B	8.89	9.83	1.0	8	25	36.7	13.6	100
STB-LC-S520	18.9	20.9	1.0	17	1.0	18.1	27.6	100

Notes:

- (1) Non-repetitive Current pulse, per Fig. 2 and derated above $T_a = 25\text{ °C}$ per Fig. 1
- (2) Mounted on copper Lead area at 5.0 mm^2 (0.013 mm thick).
- (3) V_{BR} measured after I_t applied for 300 μs ., I_t = square wave pulse or equivalent.

RATING AND CHARACTERISTIC CURVES (STB-LC-S59B ~ STB-LC-S520)

FIG.1 - PULSE DERATING CURVE

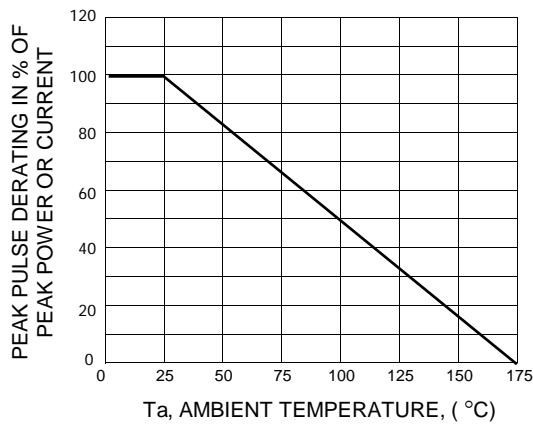


FIG.2 - PULSE WAVEFORM

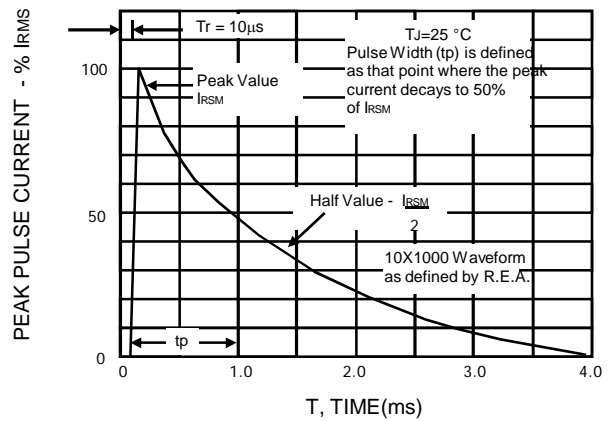


FIG.3 - STEADY STATE POWER DERATING

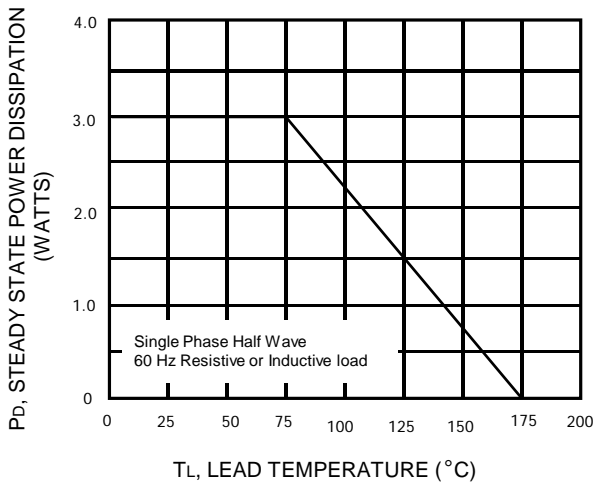


FIG.4 - PULSE RATING CURVE

