



THE DATASHEET OF SLD33CA-TP





Micro Commercial Components



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 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

SLD10(C)A THRU SLD60(C)A

**6000 Watt
 Transient Voltage
 Suppressors
 10 to 60 Volts**

Features

- Automotive Protection
- Glass Passivated Chip
- Excellent Clamping Capability
- Uni and Bidirectional unit
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

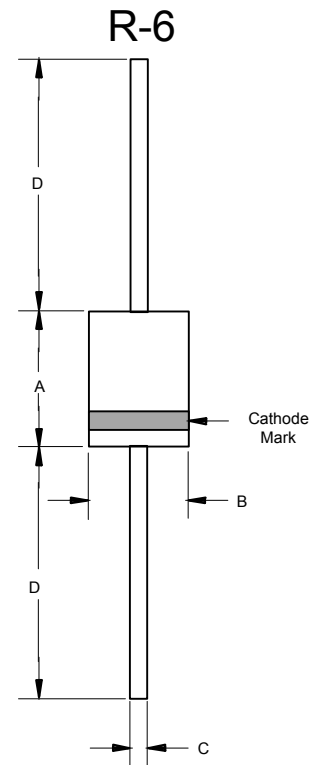
Maximum Ratings

- Operating Temperature: -55°C to +175°C
- Storage Temperature: -55°C to +175°C
- 6000 W Peak Pulse Power Capability With a 10/1000 us waveform Repetitive Rate(duty cycle)0.01%

Parameter	Symbol	Value	UNIT
Peak power dissipation with a 10/1000µs waveform ⁽²⁾	P _{PP}	6000	W
Peak power dissipation with a 10/10,000µs waveform ⁽²⁾	P _{PP}	2400	W
Peak pulse current with a 10/1000µs waveform ⁽²⁾	I _{PP}	See Next Table	A
Power dissipation on infinite heatsink at T _L = 75 °C	P _D	8.0	W
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only ⁽³⁾	I _{FSM}	500	A
Maximum instantaneous forward voltage at 100 A for unidirectional only ⁽³⁾	V _F	3.5	V
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +175	°C

Note:

- (1)High Temperature Solder Exemption Applied, see EU Directive Annex 7.
- (2)Non-repetitive current pulse per Fig.5 and derated above T_A= 25 °C per Fig.1
- (3)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.340	.360	8.60	9.10	
B	.340	.360	8.60	9.10	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

SLD10(C)A thru SLD60(C)A

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

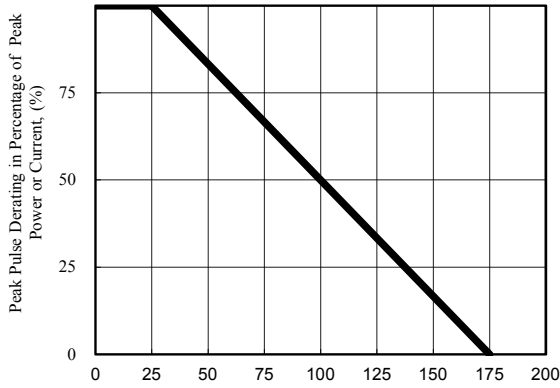


Fig. 1 - Pulse Derating Curve

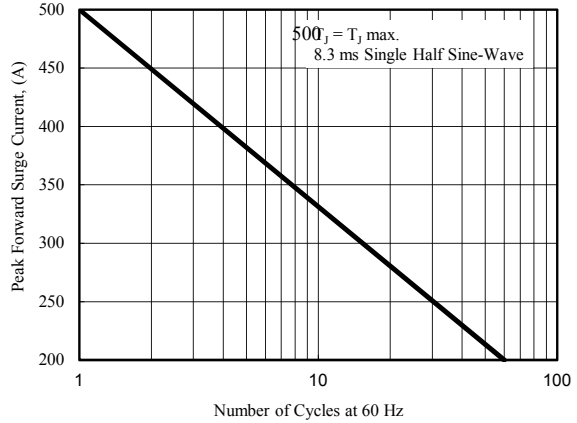


Fig. 2 - Maximum Non-Repetitive Surge Current

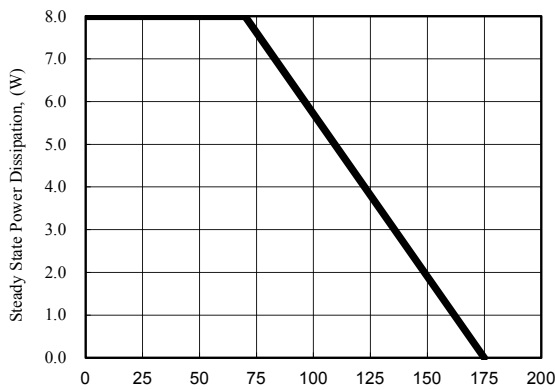


Fig. 3 - Steady State Power Derating Curve

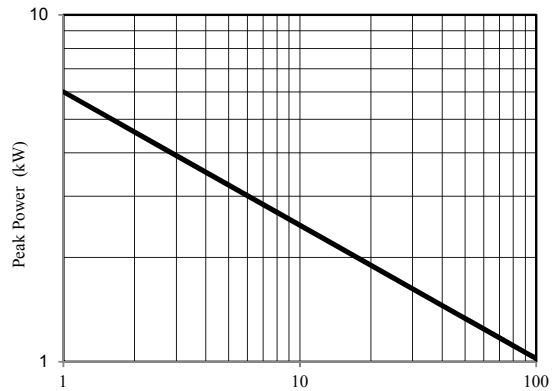


Fig. 4 - Peak Pulse Power Rating Curve

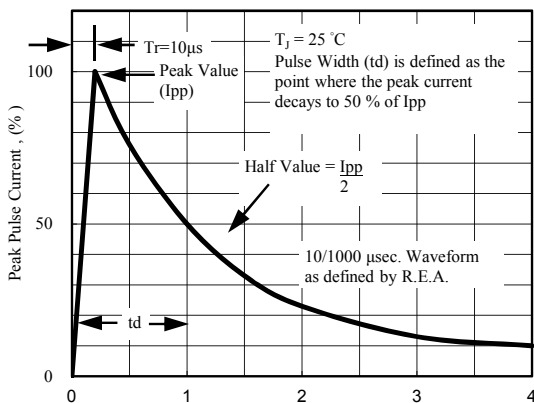


Fig. 5 - Pulse Waveform

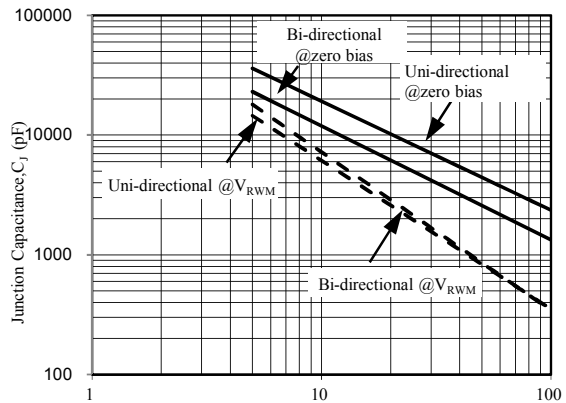


Fig. 6 - Typical Junction Capacitance

SLD10(C)A thru SLD60(C)A

Electrical Characteristics($T_A=25^\circ\text{C}$ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Breakdown Voltage V_{BR} @ I_T			Maximum Reverse Leakage I_R @ V_{RWM} (μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @ I_{PP} (V)
		Min (V)	Max (V)	I_T (mA)				
SLD10A	SLD10CA	11.80	13.0	5	10	10	350.0	17.0
SLD11A	SLD11CA	12.20	13.5	5	10	11	327.0	18.2
SLD12A	SLD12CA	13.30	14.7	5	10	12	300.0	19.9
SLD13A	SLD13CA	14.40	15.9	5	10	13	277.0	21.5
SLD14A	SLD14CA	15.60	17.2	5	10	14	257.0	23.2
SLD15A	SLD15CA	16.70	18.5	5	10	15	245.0	24.4
SLD16A	SLD16CA	17.80	19.7	5	10	16	229.0	26.0
SLD17A	SLD17CA	18.90	20.9	5	10	17	216.0	27.6
SLD18A	SLD18CA	20.00	22.1	5	10	18	204.0	29.2
SLD20A	SLD20CA	22.20	24.5	5	10	20	184.0	32.4
SLD22A	SLD22CA	24.40	26.9	5	10	22	168.0	35.5
SLD24A	SLD24CA	25.00	30.0	5	10	24	153.0	38.9
SLD26A	SLD26CA	28.90	31.9	5	10	26	142.0	42.1
SLD28A	SLD28CA	31.10	34.4	5	10	28	131.0	45.4
SLD30A	SLD30CA	33.30	36.8	5	10	30	123.0	48.4
SLD33A	SLD33CA	36.70	40.6	5	10	33	112.0	53.3
SLD36A	SLD36CA	40.00	44.2	5	10	36	103.0	58.1
SLD40A	SLD40CA	44.40	49.1	5	10	40	92.5	64.5
SLD43A	SLD43CA	49.00	54.2	5	10	43	86.00	69.4
SLD48A	SLD48CA	53.30	58.9	5	10	48	77.00	77.4
SLD54A	SLD54CA	60.00	66.3	5	10	54	68.50	87.1
SLD58A	SLD58CA	64.40	71.2	5	10	58	64.00	93.6
SLD60A	SLD60CA	68.40	75.6	5	10	60	61.50	96.8

Note:

1. Add suffix 'CA' after part number to specify Bi-directional devices
2. For Bi-Directional devices having V_R of 10 volts and under, the I_R limit is double
3. Surge current waveform is defined at 10/1000uS waveform



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 500pcs/Reel
Part Number-AP	Ammo Packing: 450pcs/Ammo Box
Part Number-BP	Bulk: 4.8Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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