



Micro Commercial Components



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SLD10(C)A
THRU
SLD60(C)A

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%

6000 Watt
Transient Voltage
Suppressors
10 to 60 Volts

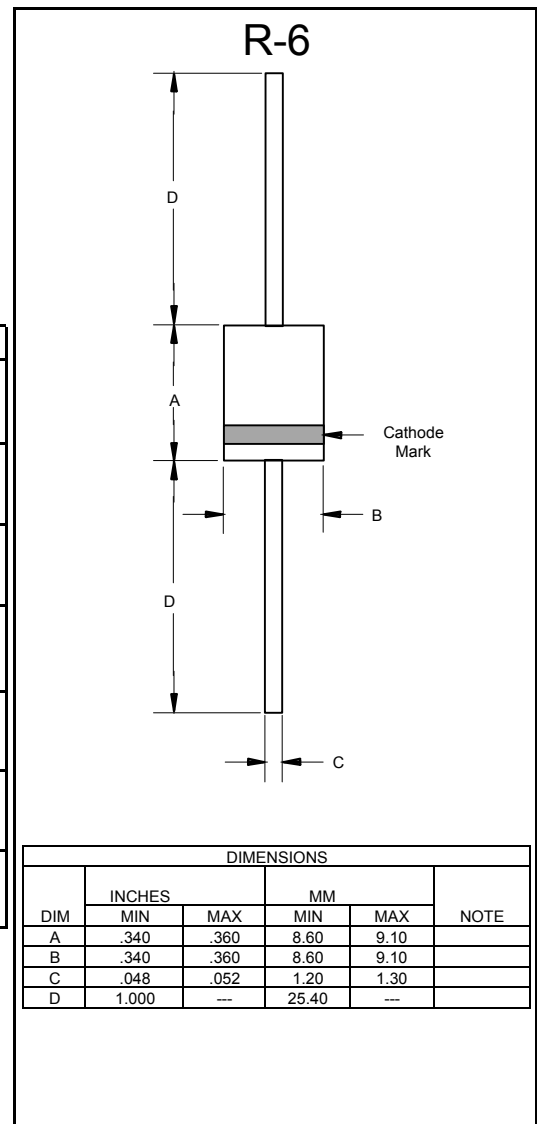


Table with 4 columns: Parameter, Symbol, Value, UNIT. Rows include Peak power dissipation, Peak pulse current, Power dissipation, Peak forward surge current, Maximum instantaneous forward voltage, and Operating junction and storage temperature range.

Note:

- (1)High Temperature Solder Exemption Applied, see EU Directive Annex 7.
(2)Non-repetitive current pulse per Fig.5 and derated above TA= 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

# SLD10(C)A thru SLD60(C)A

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

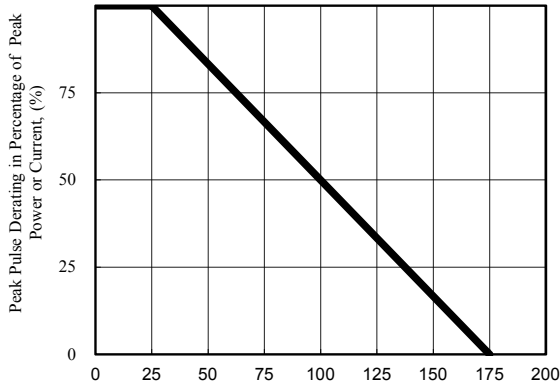


Fig. 1 - Pulse Derating Curve

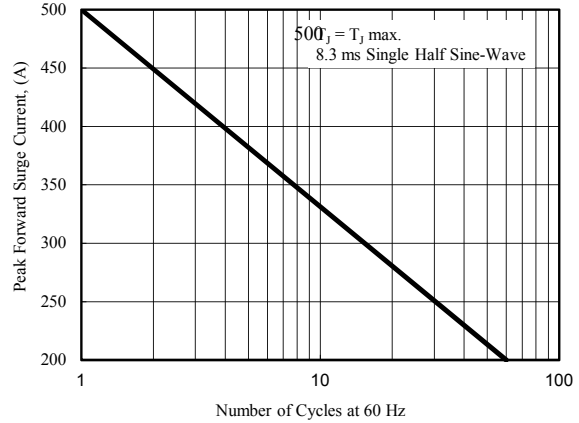


Fig. 2 - Maximum Non-Repetitive Surge Current

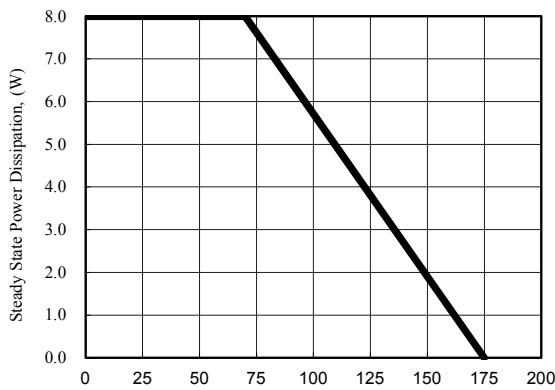


Fig. 3 - Steady State Power Derating Curve

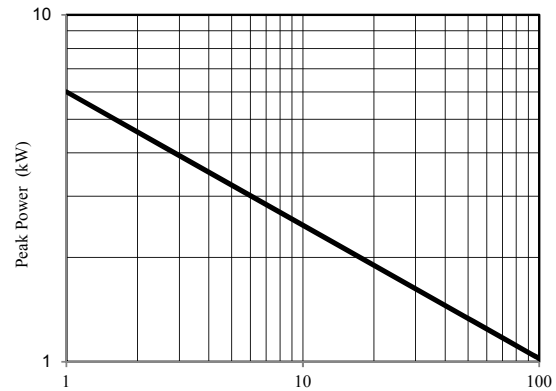


Fig. 4 - Peak Pulse Power Rating Curve

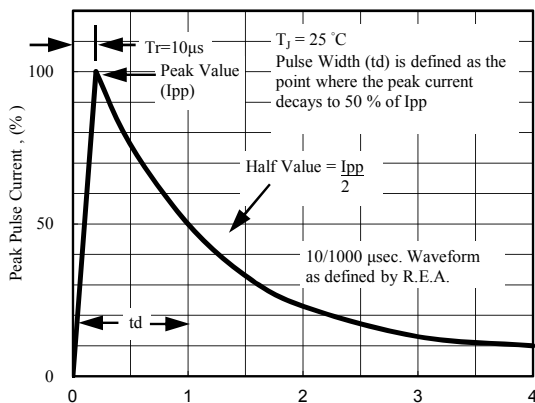


Fig. 5 - Pulse Waveform

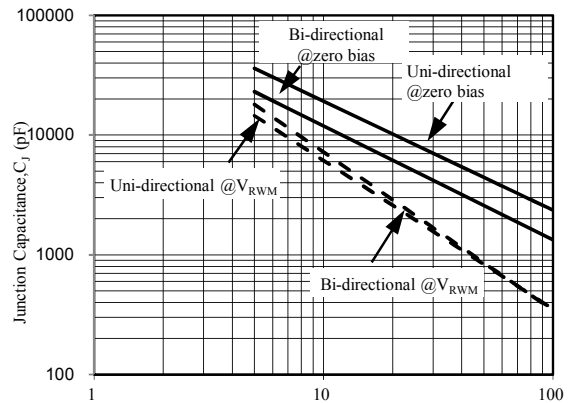


Fig. 6 - Typical Junction Capacitance

# SLD10(C)A thru SLD60(C)A

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

| Part Number<br>(Uni) | Part Number<br>(Bi) | Breakdown Voltage $V_{BR}$ @ $I_T$ |         |            | Maximum<br>Reverse<br>Leakage $I_R$<br>@ $V_{RWM}$<br>( $\mu\text{A}$ ) | Working<br>Peak Reverse<br>Voltage<br>$V_{RWM}$<br>(V) | Maximum<br>Reverse<br>Surge<br>Current $I_{PP}$<br>(A) | Maximum<br>Clamping<br>Voltage $V_C$<br>@ $I_{PP}$<br>(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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