

# Silicon Avalanche Diodes

## Axial Leaded High Power Automotive Transient Voltage Suppressors

### NEW RoHS SLD Series

The SLD series is specifically designed for automotive applications, available in both unidirectional and bidirectional.

The SLD 10U is designed to be used in series, for example three 10Us in series for a 30 volt working; this configuration will provide a very high power (a multiple of 3) capability and is a far superior solution than using devices in parallel, which will require closely matched devices in order to prevent 'current hogging' and consequently, damage to the device.

#### FEATURES

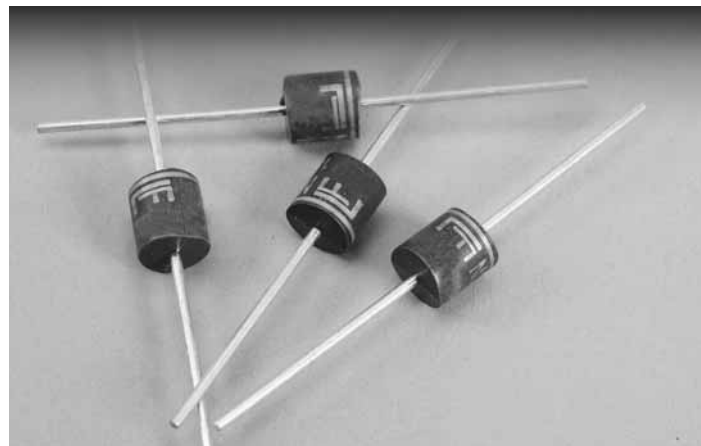
- **RoHS Compliant**
- 2200 Watts Peak Power rated with 100μs/150mS pulse (applies to a single device)
- 50,000 Watts Peak Pulse Power based on 8/20μs (applies to a single device)
- UL 94V-0 Flammability classification

#### APPLICATION

- Designed to protect sensitive electronics which operate within an automotive system, such as: sound systems, satellite navigation, climate control, engine management, stability control, ABS etc.

**Agency Approvals:** Recognized under the Components Program of Underwriters Laboratories.

**Agency File Number:** E128662



#### ABSOLUTE MAXIMUM RATINGS @25°C case temp (unless otherwise noted)

SYMBOL	PARAMETER	VALUE	UNIT
PPP	Peak pulse power 100μ/150m sec. Pulse 8/20μ sec. Pulse	2,200 50,000	Watts Watts
PM (AV)	Steady state power dissipation, lead length 9.5mm, TL - 85 (note1)	6.3	Watts
Vf	Maximum instantaneous forward voltage @ 100amps (note 2)	3.5	Volts
Tj	Junction temperature	-55 to +150	°C
Tstg	Storage temperature	-55 to +175	°C

Note 1. Mounted on copper pad area 40mm square.

Note 2. Using 300 microsecond square pulse; applies to uni-directional only, and a single device only.

For devices used in series, this value should be multiplied by the number of devices.

#### Mechanical Specifications:

<b>Weight:</b>	0.07 ounce, 2.1 gram
<b>Case:</b>	Molded plastic over glass passivated junction
<b>Mounting Position:</b>	Any
<b>Polarity:</b>	Color band denotes positive end (cathode) except Bipolar
<b>Terminal:</b>	Plated Axial leads, solderable per MIL-STD-750, Method 2026

#### ORDERING INFORMATION

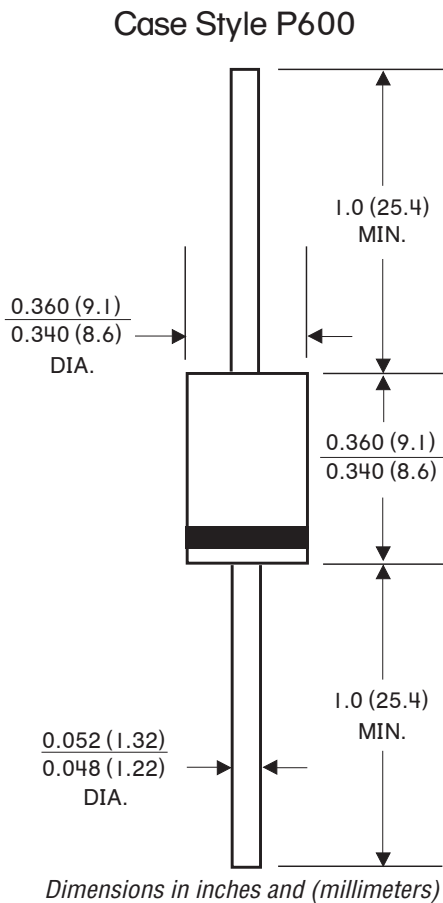
SLD	□	□	U1018	□
Voltage	—	—	—	—
Bi-Directional	—	—	—	—
Packaging Options	—	—	—	—
T = Tape and reeled (800 pcs)				

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### Axial Leaded High Power Automotive Transient Voltage Suppressors

#### **NEW** **RoHS** **SLD™ Series**

#### Package Outline Dimensions



#### Characteristics @25°C case temp (unless otherwise noted)

Part Number		Working voltage (Vr)	Breakover Voltage (bv) @It			Maximum leakage current (Ir) @ Vr	Clamping Voltage (Vcl) @ Ipp	Max Peak Pulse Current Ipp
			min	max	It			
UNI	BI	volts	volts	volts	mA	μA	volts	A
SLD16U-017	SLD16-018	16	18.0	22.0	1.0	10.0	28.6	76
SLD24U-017	SLD24-018	24	25.0	30.0	1.0	10.0	36.0	61
SLD10U-017	SLD10-018	10	11.8	13.0	5.0	10.0	19.0	115
	3 x SLD 10U in series	30	35.4	39.0	5.0	10.0	45.0	100

Note 3. Using 100μS / 150mS pulse as defined by ISO7637/2 pulse #5.

Please note, U suffix denotes uni-directional.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

[SLD10U-022-B](#) [SLD10U-022](#)