

# Silicon Avalanche Diodes

## Axial Leaded High Power Automotive Transient Voltage Suppressors

### 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

- 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.

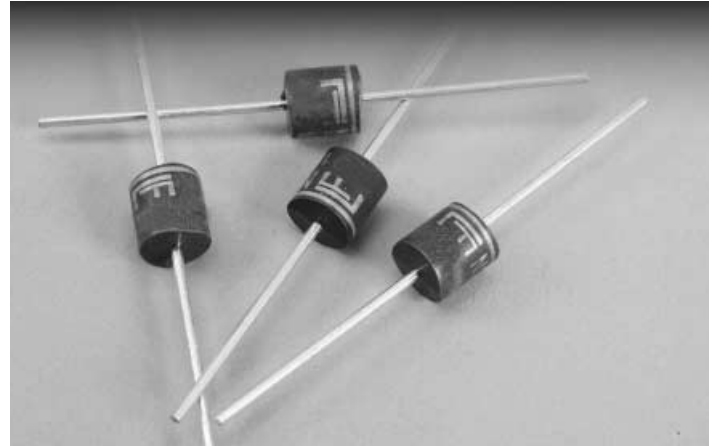
#### ABSOLUTE MAXIMUM RATINGS @25°C case temp (unless otherwise noted)

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 +150	°C

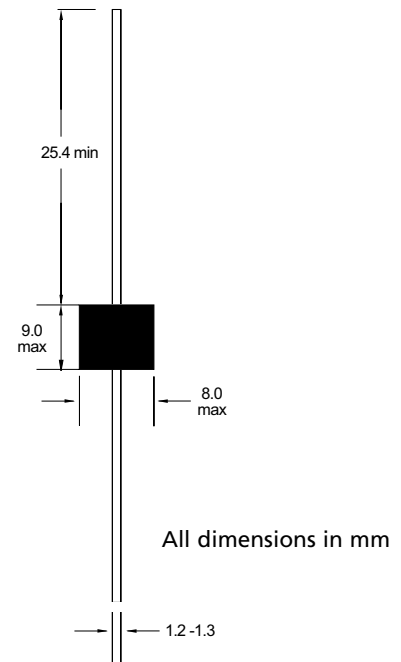
Note 1. Mounted on copper pad area 40mm square.

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.



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

Part Number	Working voltage (Vr)	Breakover Voltage (bv) @It			Maximum leakage current (Ir) @ Vr
		min	max	It	
	volts	volts	volts	mA	µA
SLD 16U	16	18.0	22.0	1.0	10.0
SLD 24U	24	25.0	30.0	1.0	1.0
SLD 10U	10	11.8	13.0	5.0	10.0
3 x SLD 10U in series	30	35.4	39.0	5.0	10.0

Note 3. Using 100µS / 150mS pulse as defined by ISO7637/2 pulse #5. Please note, U suffix denotes uni-directional.