Technical Data
Data Sheet N1650, Rev. -

Green Products

DSR1A-DSR1M SUFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

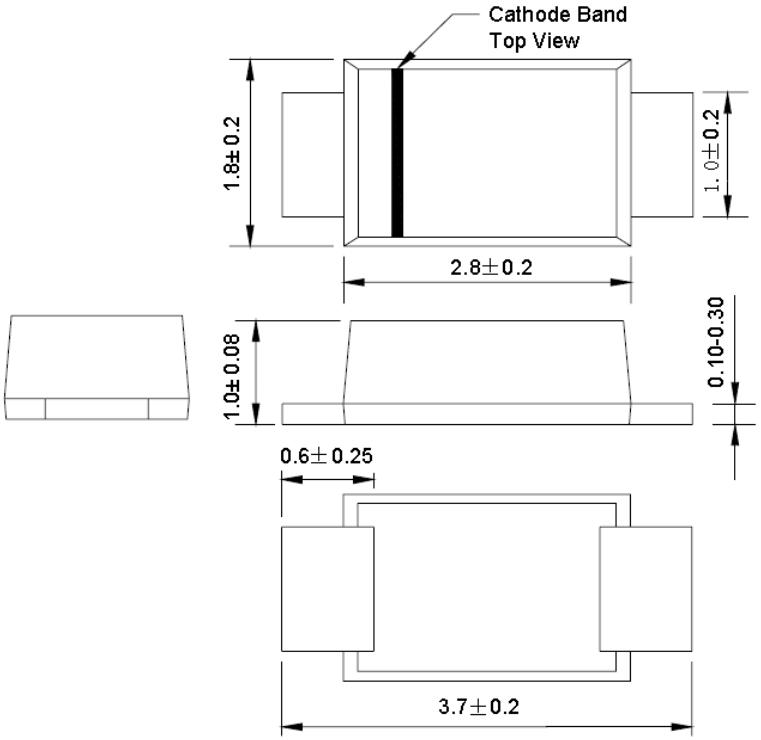
Features:

- **Glass passivated device**
- **Ideal for surface mouted applications**
- **Low reverse leakage**
- **Metallurgically bonded construction**
- **High temperature soldering guaranteed: 250 C/10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Mechanical Data:

- **Case: JEDEC SOD-123SL molded plastic body over passivated chip**
- **Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026**
- **Polarity: Color band denotes cathode end**
- **Mounting Position: Any**
- **Weight:0.0007 ounce, 0.02 grams**

Mechanical Dimensions: In mm

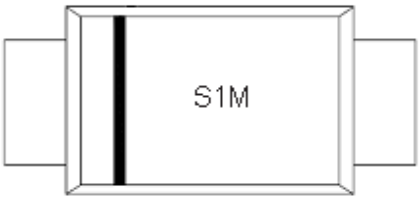


SOD-123SL

Technical Data
Data Sheet N1650, Rev. -

Green Products

Marking Diagram:



S1M = Part Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
DSR1A-DSR1M	SOD-123SL (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	DSR1A S1A	DSR1B S1B	DSR1D S1D	DSR1G S1G	DSR1J S1J	DSR1K S1K	DSR1M S1M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at T_A=65°C (NOTE 1)	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T_L=25°C	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=125℃	I_R	10.0 50.0							μA
Typical junction capacitance (NOTE 2)	C_J	4							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	180							K/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							°C

Note: 1.Averaged over any 20ms period.
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.PCB mounted on 0.2*0.2" (5.0*5.0mm) coppeer pad area.

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

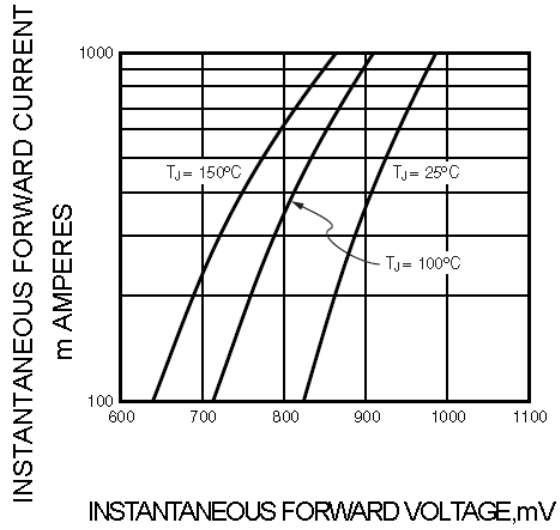


FIG.2 – TYPICAL JUNCTION CAPACITANCE

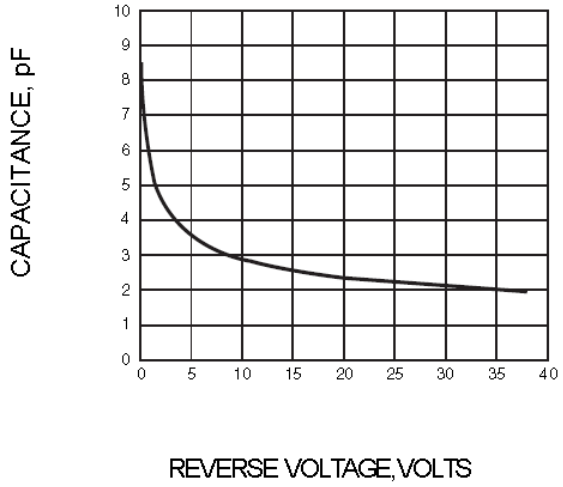


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

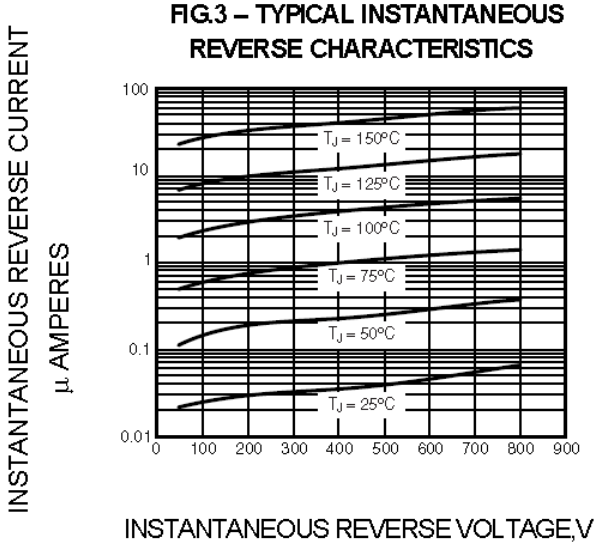
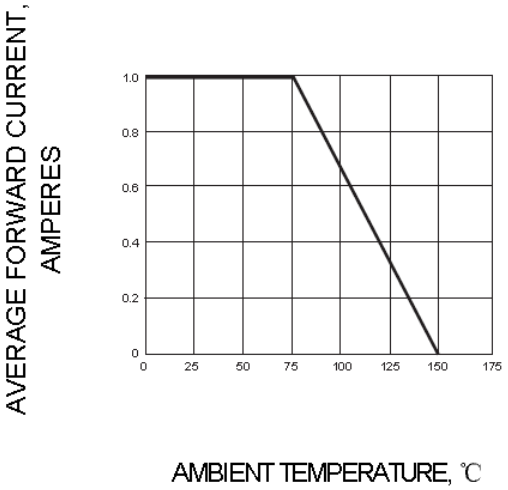


FIG.4 – FORWARD DERATING CURVE



Technical Data
Data Sheet N1650, Rev. -

Green Products

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