



DSR0.5A THRU DSR0.5M

Surface Mount Standard Rectifiers

Reverse Voltage - 50 to 1000 Volts Forward Current - 0.5 Ampere

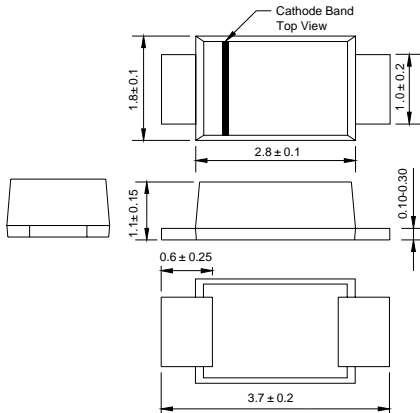
Features

- ◆ Low profile space
- ◆ Ideal for automated placement
- ◆ Glass passivated chip junctions
- ◆ Low forward voltage drop
- ◆ Low leakage current
- ◆ High forward surge capability
- ◆ High temperature soldering:
260°C/10 seconds at terminals
- ◆ Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Data

Case: JEDEC SOD-123FL molded plastic body over glass passivated chip
Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
Polarity: Laser band denotes cathode end
Weight: 0.017gram

SOD-123FL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MDD Catalog Number	SYMBOLS	S05A	S05B	S05D	S05G	S05J	S05K	S05M	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 $T_A=65^\circ\text{C}$ (NOTE 1)	$I_{(AV)}$	0.5							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=25^\circ\text{C}$	I_{FSM}	15.0							Amps
Maximum instantaneous forward voltage at 0.5A	V_F	1.1							Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5.0 50.0							μA
Typical junction capacitance (NOTE 2)	C_J	4							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	220							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

Note1: Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas ($\approx 35 \mu\text{m}$ thick)



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RATINGS AND CHARACTERISTIC CURVES DSR0.5A THRU DSR0.5M

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

Fig.1 Forward Current Derating Curve

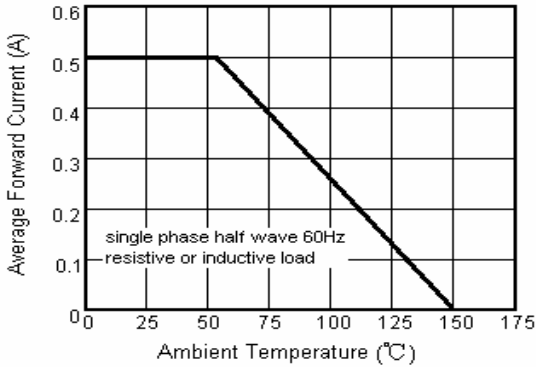


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

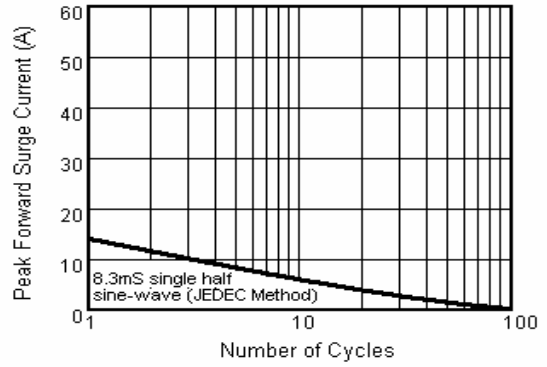


Fig.3 Typical Instantaneous Forward Characteristics

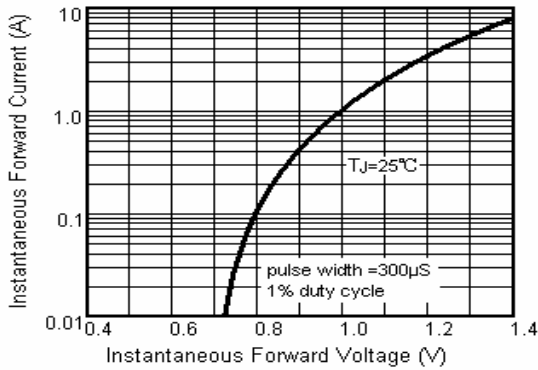


Fig.4 Typical Reverse Characteristics

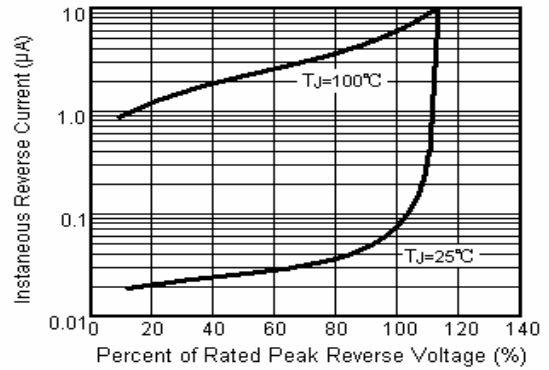
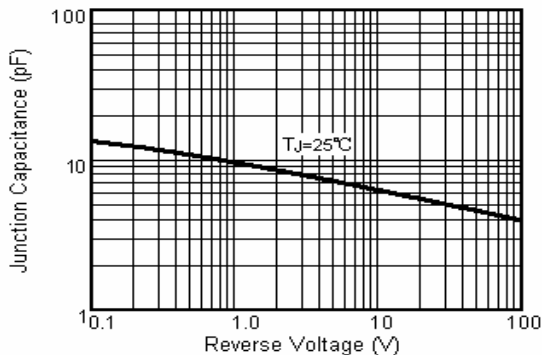


Fig.5 Typical Junction Capacitance



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考!)

