



R1A THRU R1M

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.2 Ampere

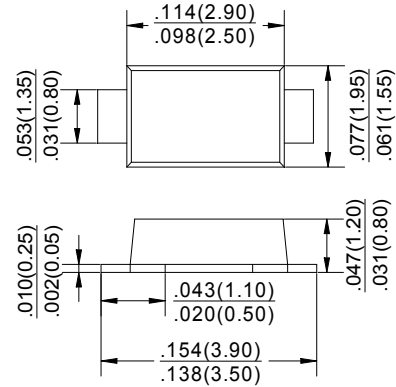
Features

- Glass passivated chip
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering:
260°C/10S at terminals
- HF Epoxyresin(Black)

Mechanical Data

- Case: JEDEC SOD-123FL mold plastic
Body over glass passivated chip
- Terminals: Solder plated, solderable per
J-STD-002B and JESD22-B102D
- Polarity: Laser band denote cathode band
- Weight: 0.00063ounce, 0.018grams

SOD-123FL



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 derate current by 20%

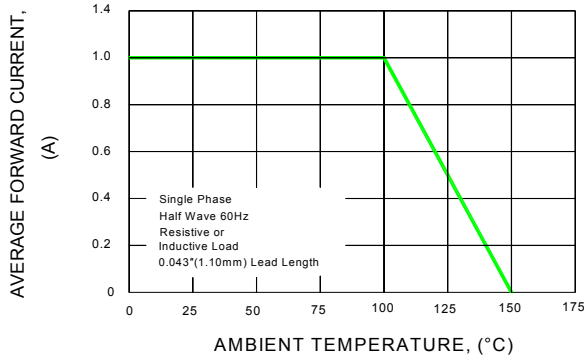
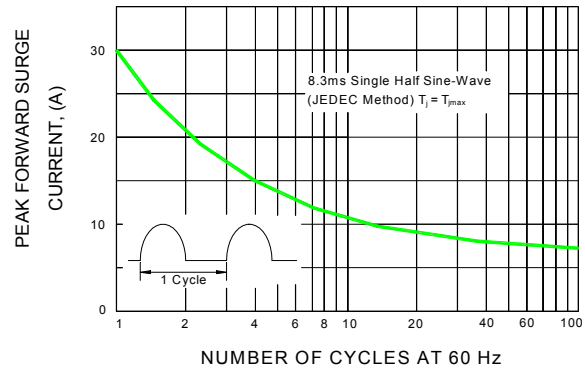
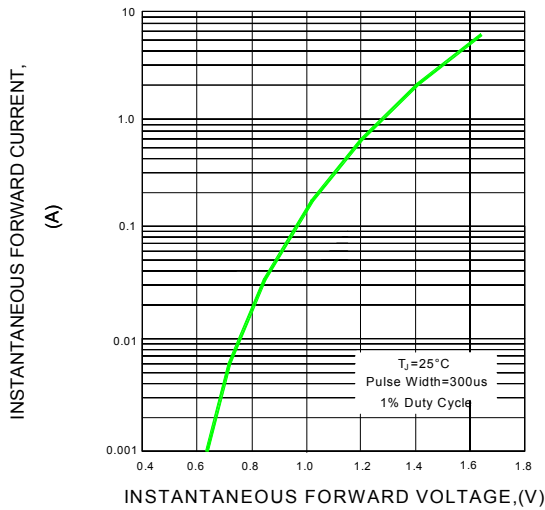
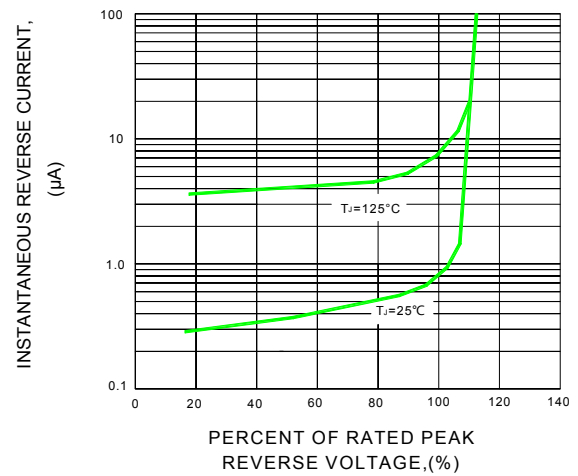
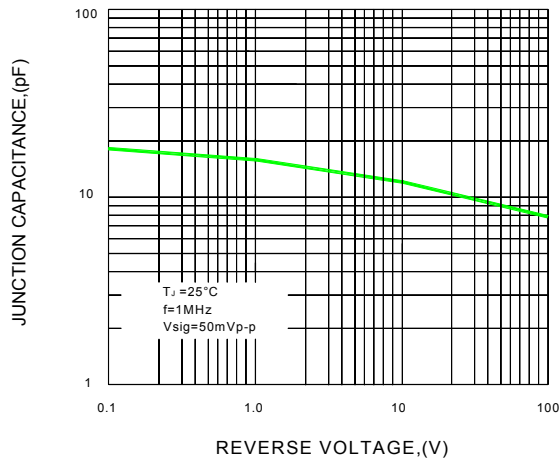
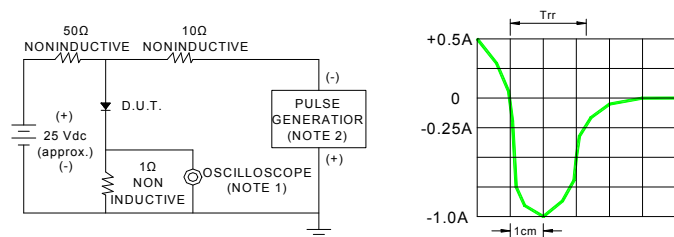
TYPE NUMBER	SYMBOLS	R1A	R1B	R1D	R1G	R1J	R1K	R1M	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A = 25^\circ C$							μA
		$T_A = 125^\circ C$							
Maximum Reverse Recovery Time(NOTE1)	T_{RR}	130				250	400		nS
Typical Junction Capacitance (NOTE2)	C_J	15							pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	60							$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ C$

Notes:

1. Reverse Recovery Test Conditions: $I_f=0.5A, I_r=1.0A, I_{rr}=0.25A$.
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
3. Thermal Resistance from Junction to Ambient at $5.0 \times 5.0mm^2$ copper pad areas.



Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

FIG.1-TYPICAL 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****FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**

NOTES : 1. Rise Time = 7ns max. Input Impedance = 1 magohm. 22pF
 2. Rise time = 10ns max. Source Impedance = 50 ohms

SET TIME BASE FOR 50/100ns/cm