

GLASS PASSIVATED JUNCTION HIGH EFFICIENCY RECTIFIERS

REVERSE VOLTAGE: 50 to 1000VOLTS

FORWARD CURRENT: 1.0 AMPERE

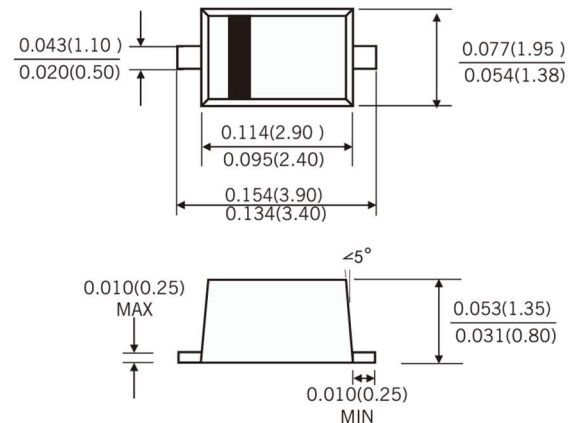
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High current capability, High reliability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

Mechanical Data

- Case: SOD-123FL molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Reel: 3000Pcs

SOD-123FL



Dimensions in inches and (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, derate current by 20%.

Parameters / Marking Code	Symbols	U1A	U1B	U1D	U1F	U1G	U1J	U1K	U1M	Units	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	1000	Volts	
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current	I(AV)	1.0								Amp	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30.0								Amps	
Maximum Instantaneous Forward Voltage at 1.0 A	V _F	1.0				1.25	1.7			Volts	
Maximum DC Reverse Current at rated DC blocking voltage	I _R	5.0								μA	
		100									
Typical Thermal resistance	R _{θJA}	170								°C/W	
	R _{θJL}	55									
Maximum reverse recovery time(Note1)	T _{rr}	50					75				ns
Typical junction capacitance(Note2)	C _J	15								Pf	
Operating junction and storage temperature range	T _J T _{STG}	-55 to+150								°C	

Note:

1. Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.
2. Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES

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

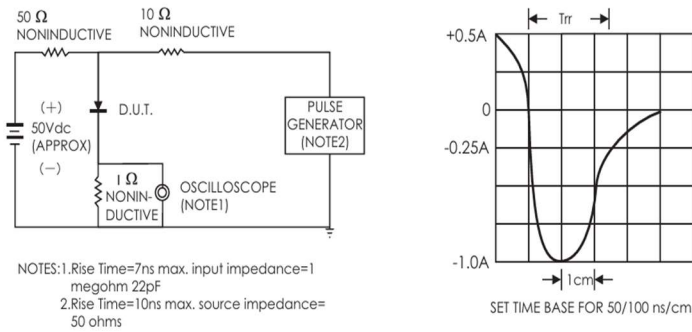


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

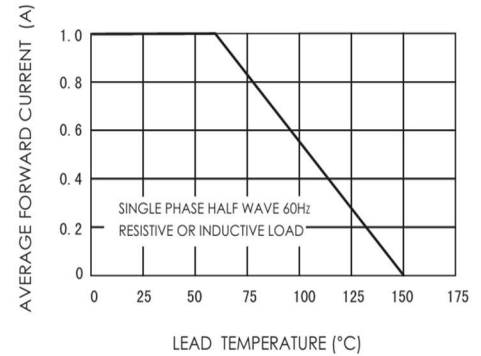


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

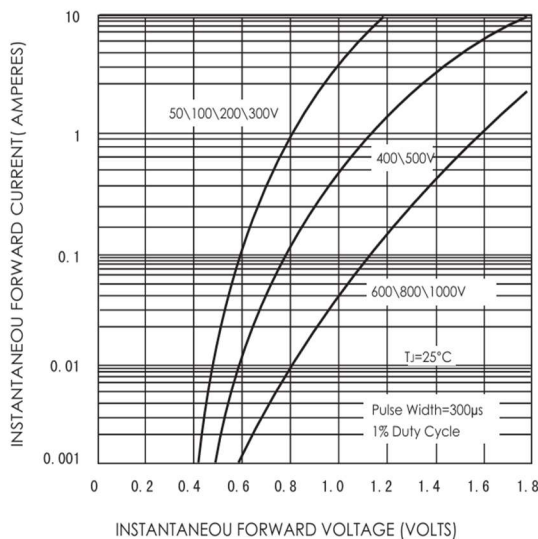


FIG.4-TYPICAL REVERSE CHARACTERISTICS

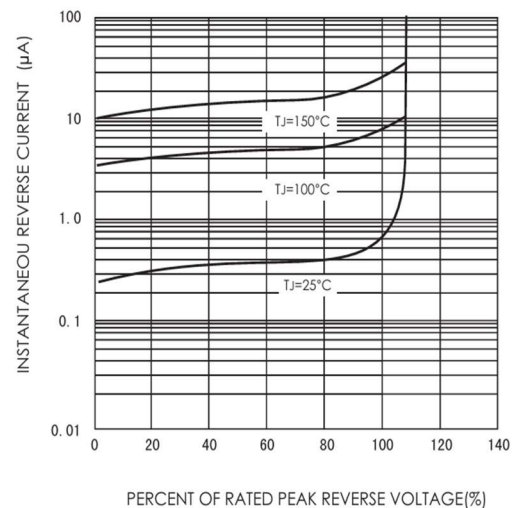


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

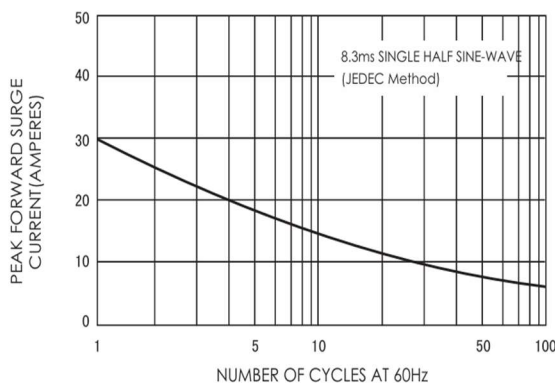


FIG.6-TYPICAL JUNCTION CAPACITANCE

