

GLASS PASSIVATED SUPER FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE: 50 to 1000VOLTS

FORWARD CURRENT: 1.0 AMPERE

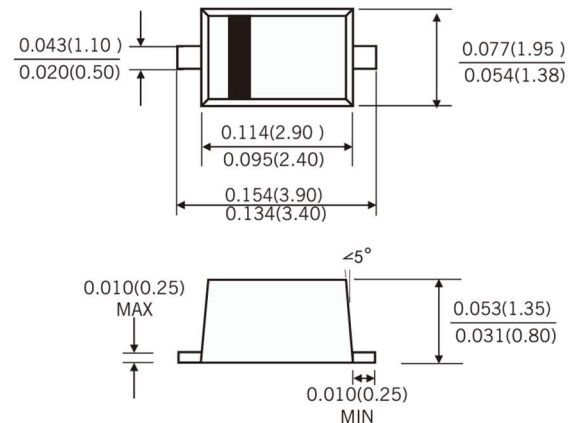
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- For Surface Mount Applications, Easy to pick and place
- High temperature soldering guaranteed:
260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/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	E1A	E1B	E1D	E1G	E1J	E1K	E1M	Units
Maximum Recurrent 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 _L =100°C	I(AV)	1.0							Amps
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	0.95			1.3	1.7	2.2	2.9	Volts
Maximum DC Reverse Current at rated DC blocking voltage	I _R	5.0							μA
		100							
Thermal resistance from junction to ambient	R _{θJA}	150							°C/W
Maximum reverse recovery time(Note1)	t _{rr}	35							ns
Typical junction capacitance(Note2)	C _J	15.0							pF
Operating junction and storage temperature range	T _J	-55 to +150							°C
	T _{STG}								

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 4.0V DC

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

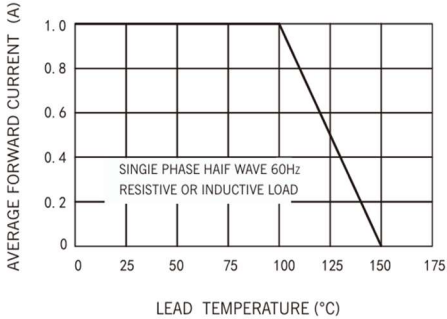


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

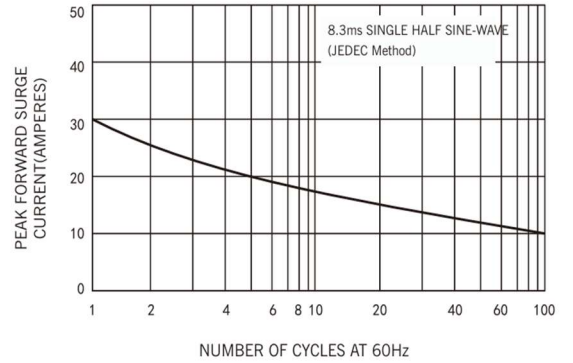


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

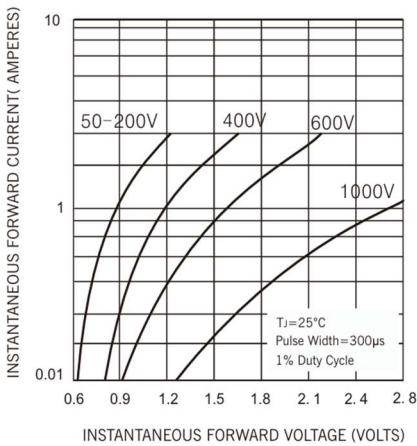


FIG.4-TYPICAL REVERSE CHARACTERISTICS

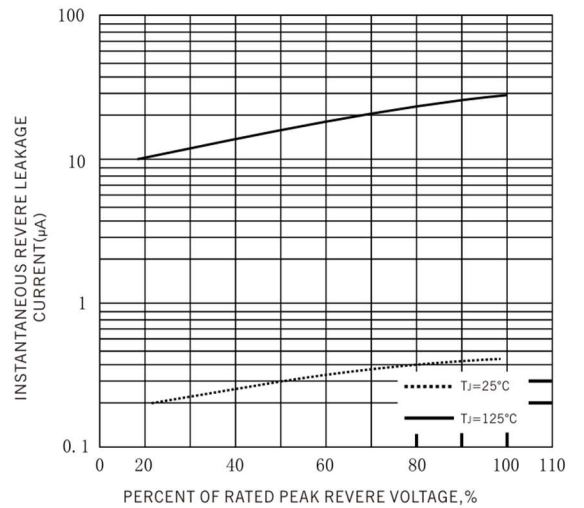


FIG.5-TYPICAL JUNCTION CAPACITANCE

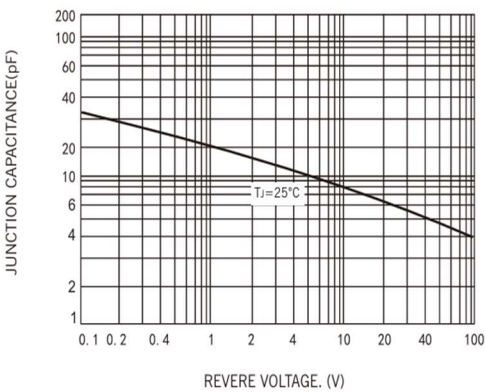


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

