



SEMICONDUCTOR

A1 THRU A7

Surface Mount Glass Passivated Rectifier  
Reverse Voltage - 50 to 1000 Volts  
Forward Current -1.0Ampere

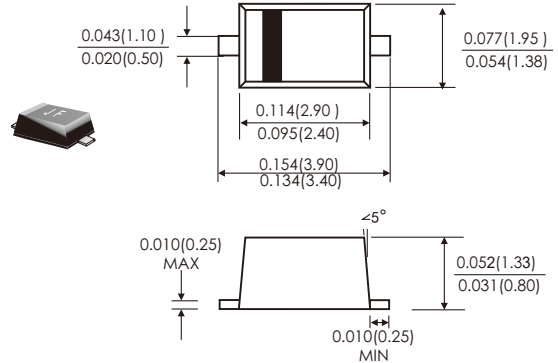
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- 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
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.01 gram

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 by 20%.)

	Symbols	A1	A2	A3	A4	A5	A6	A7	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average Forward Rectified Current	I(AV)	1.0							Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30.0							Amps
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	3.735							A <sup>2</sup> S
Maximum Instantaneous Forward Voltage at 1.0 A	V <sub>F</sub>	1.1							Volts
Maximum Reverse current at rated DC Blocking Voltage	I <sub>R</sub>	5							μA
		100							
Typical Thermal resistance (Note 2)	R <sub>θJA</sub>	170							°C/W
Typical Junction Capacitance(Note 1)	C <sub>J</sub>	12							pF
Operating and Storage temperature Range	T <sub>J</sub> T <sub>STG</sub>	-55 to+150							°C

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance from junction to ambient

# RATINGS AND CHARACTERISTIC CURVES A1 THRU A7

FIG.1-FORWARD CURRENT DERATING CURVE

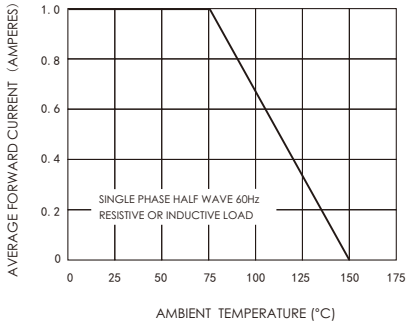


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

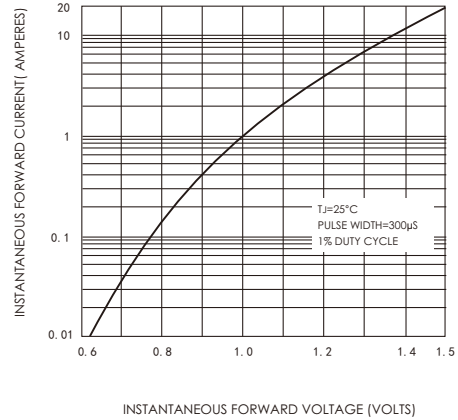


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

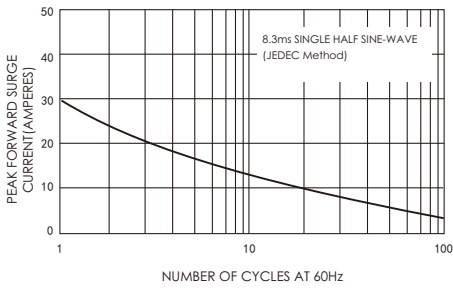


FIG.4-TYPICAL REVERSE CHARACTERISTICS

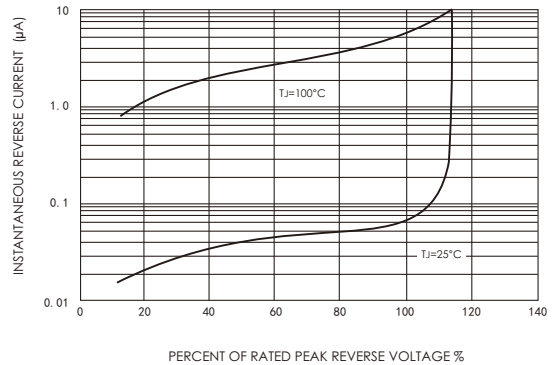


FIG.5-TYPICAL JUNCTION CAPACITANCE

