



SEMICONDUCTOR

A1-V THRU A7-V

Surface Mount Glass Passivated Rectifier

Reverse Voltage - 50 to 1000 Volts

Forward Current -1.0Ampere



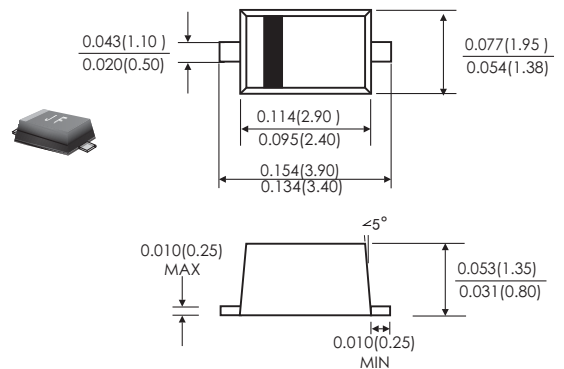
FEATURES

- 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
- **AEC-Q101 qualified and PPAP capable**



AEC-Q101 Qualified

SOD-123FL



Dimensions in inches and (millimeters)

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

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-V	A2-V	A3-V	A4-V	A5-V	A6-V	A7-V	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		I(AV)	1.0							Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A		V _F	1.1							Volts
Maximum Reverse current at rated DC Blocking Voltage	T _A =25°C	I _R	5							μA
	T _A =125°C		100							
Typical Thermal resistance (Note 2)		RθJA	170							°C/W
Typical Junction Capacitance(Note 1)		C _J	12							pF
Operating and Storage temperature Range		T _J T _{STG}	-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-V THRU A-V7

FIG.1-FORWARD CURRENT DERATING CURVE

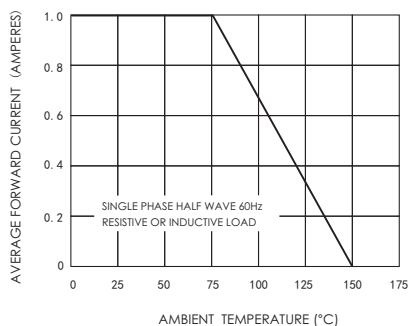


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

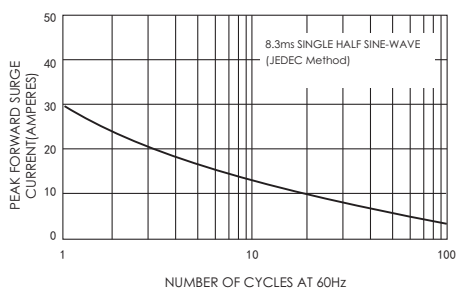


FIG.5-TYPICAL JUNCTION CAPACITANCE

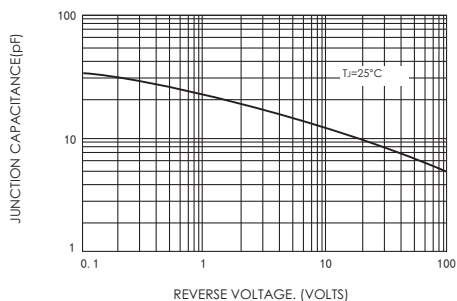


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

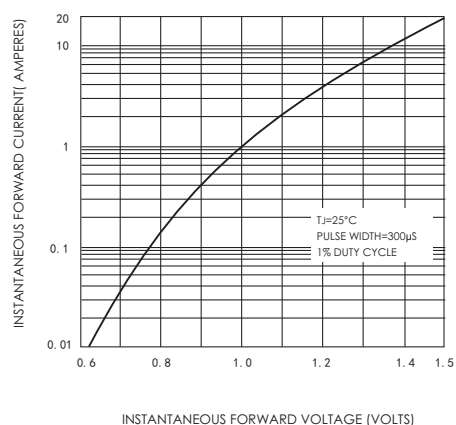


FIG.4-TYPICAL REVERSE CHARACTERISTICS

