

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE 150 to 200 Volts CURRENT 1.0 Ampere**

**FEATURES**

- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High speed switching
- \* High surge capability
- \* High reliability
- \* Guard ring construction on dic
- \* Anti-ESD

**MECHANICAL DATA**

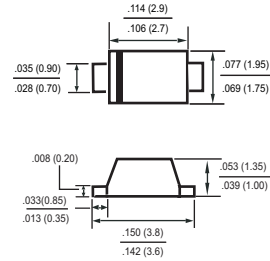
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Mounting position: Any
- \* Weight: 0.01 gram (Approx.)
- \* Flat lead frame

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**SOD-123F**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

RATINGS	SYMBOL	SS150	SS200	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	150	200	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	105	140	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	150	200	Volts
Maximum Average Forward Rectified Current @ T <sub>A</sub> =75 °C	I <sub>O</sub>	1.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	25		Amps
Current Squarad Time	I <sup>2</sup> t	2.6		A <sup>2</sup> Sec
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	110		°C/W
	R <sub>θJL</sub>	30		
Operating Temperature Range	T <sub>J</sub>	-55 to + 150		°C
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150		°C
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	110		pF

**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	SS150	SS200	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V <sub>F</sub>	0.85		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C	2.0	uAmps
		@T <sub>A</sub> = 150 °C	1.0	mAmps

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4 Volts.  
2. " ROHS compliant"  
3. Mounted on PCB.

## RATING AND CHARACTERISTICS CURVES ( SS150 , SS200 )

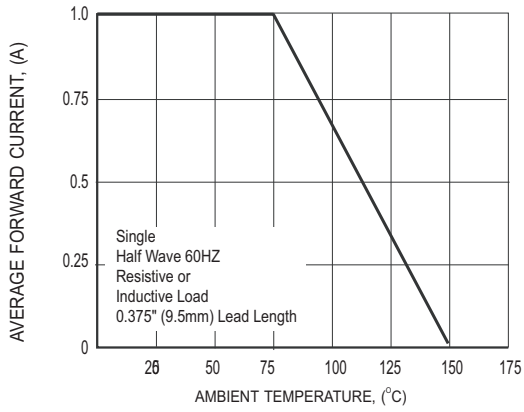


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

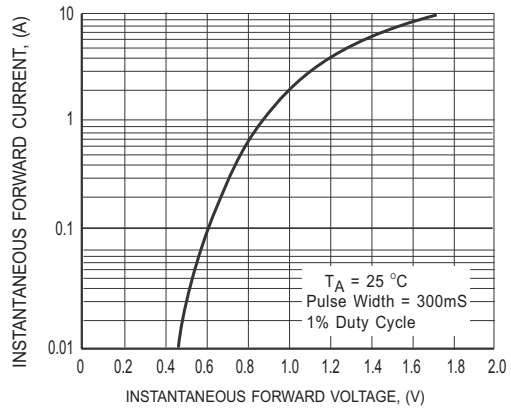


FIG.2 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

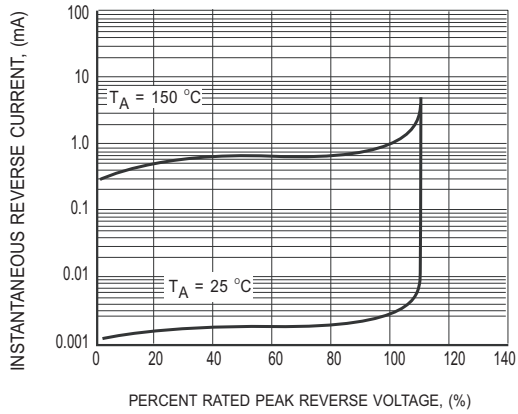


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

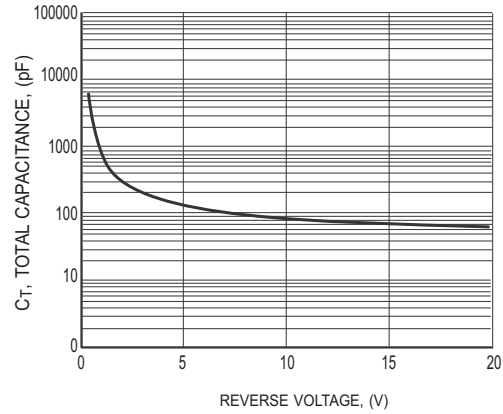


FIG.4 TYPICAL TOTAL CAPACITANCE

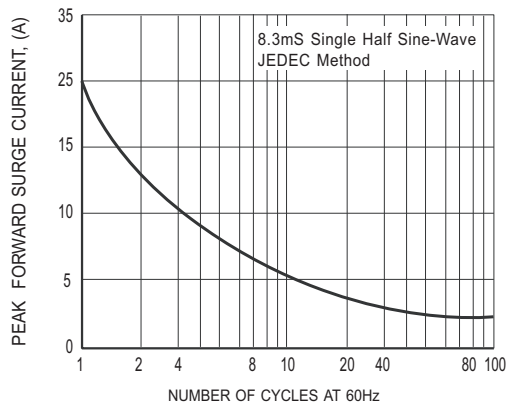
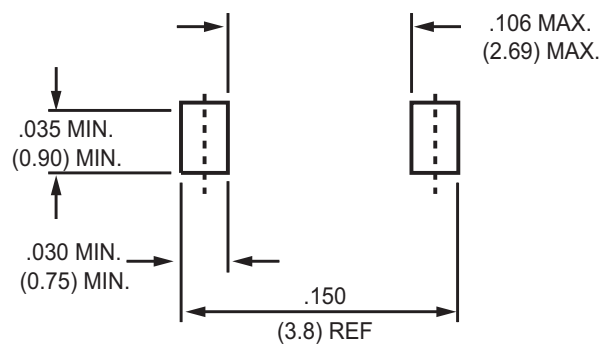


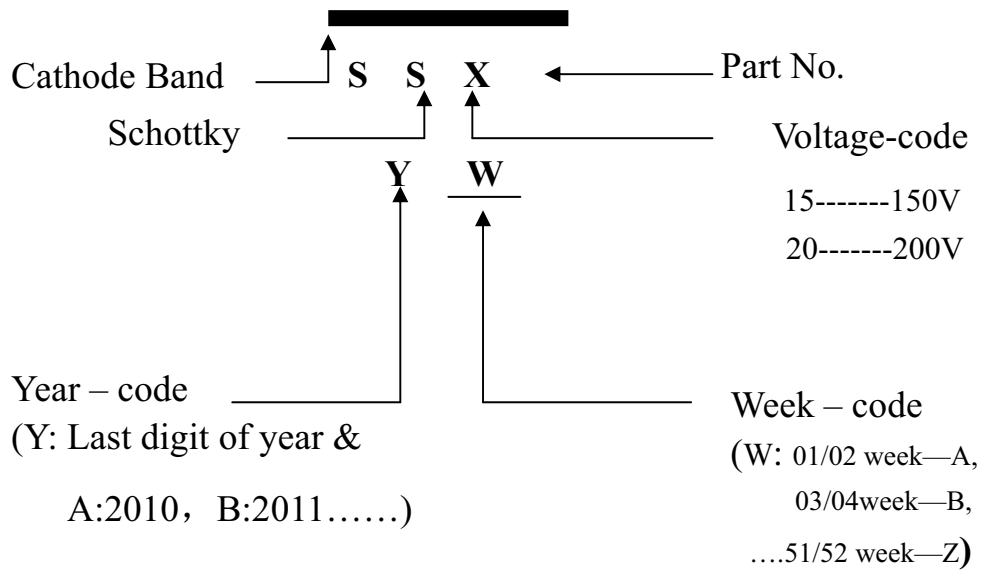
FIG.5 TYPICAL REVERSE CHARACTERISTICS

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123F/ SOD-123FL	-W	3,000	15,000	---	---	178	390*205*31	120,000	6.964