

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 100 Volts CURRENT 1.0 Ampere**

**FEATURES**

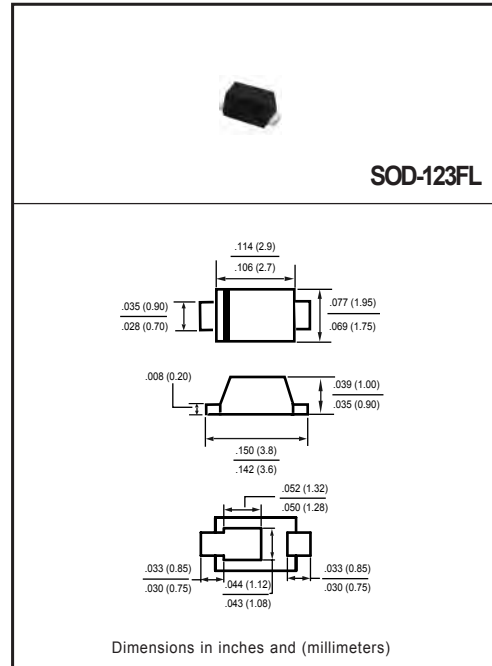
- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High speed switching
- \* High surge capability
- \* High reliability
- \* Guard ring construction on dice
- \* Anti-ESD

**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.  
Resistive or inductive load.



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

RATINGS	SYMBOL	SS20L	SS30L	SS40L	SS50L	SS60L	SS80L	SS100L	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	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>	20							Amps
Typical Current Square Time	I <sup>2</sup> T	1.6							A <sup>2</sup> S
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	110							°C/W
	R <sub>θJL</sub>	30							
Operating Temperature Range	T <sub>J</sub>	150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150							°C
Total Capacitance (Note 1)	C <sub>T</sub>	75							pF

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

CHARACTERISTICS	SYMBOL	SS20L	SS30L	SS40L	SS50L	SS60L	SS80L	SS100L	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V <sub>F</sub>	0.55			0.70		0.85		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C			0.2				mAmps
		@T <sub>A</sub> = 100°C			2				mAmps

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4 Volts.  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
3. Thermal Resistance: Mounted on PCB.

## RATING AND CHARACTERISTICS CURVES ( SS20L THRU SS100L )

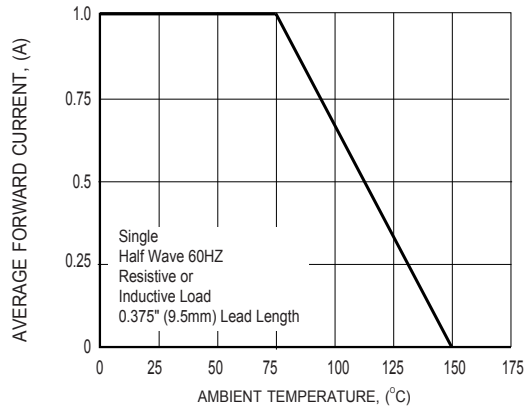


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

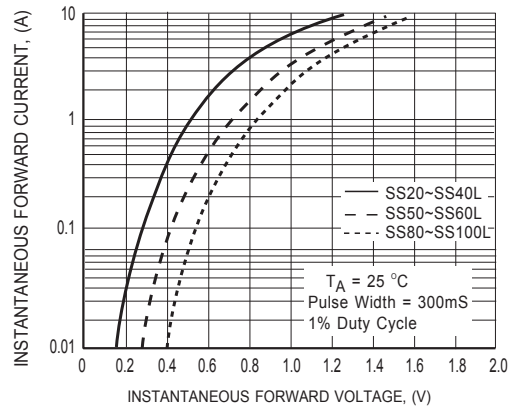


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

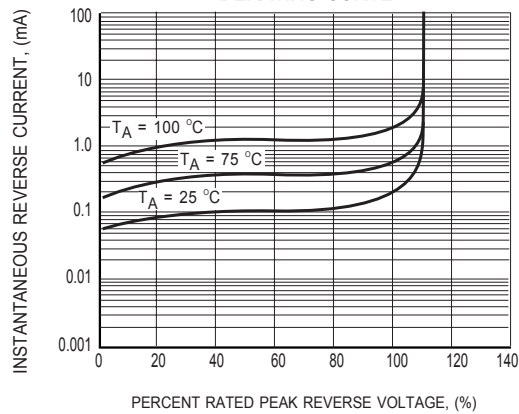


FIG.3 TYPICAL REVERSE CHARACTERISTICS

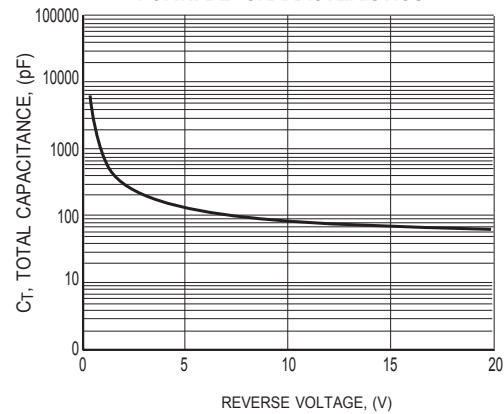


FIG.4 TYPICAL TOTAL CAPACITANCE

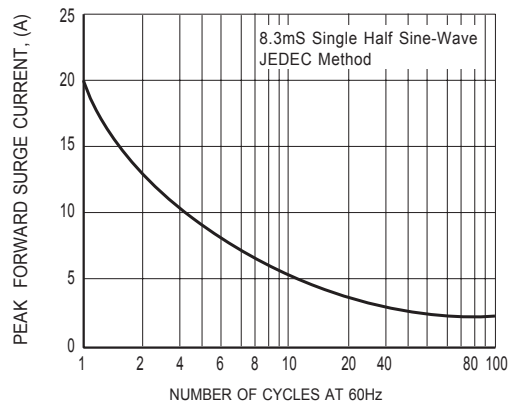
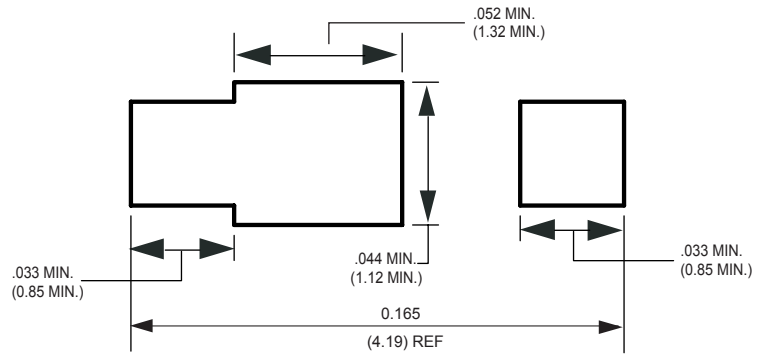


FIG.5 TYPICAL REVERSE CHARACTERISTICS

## Mounting Pad Layout



Dimensions in inches and (millimeters)

# Marking Description

**Year- code:** ← Y  
( Last digit of year &  
A:2010,B:2011... )

**Week code:** ← W  
A: week 01~02  
B: week 03~04  
C: week 05~06  
.....  
Z: week 51~52

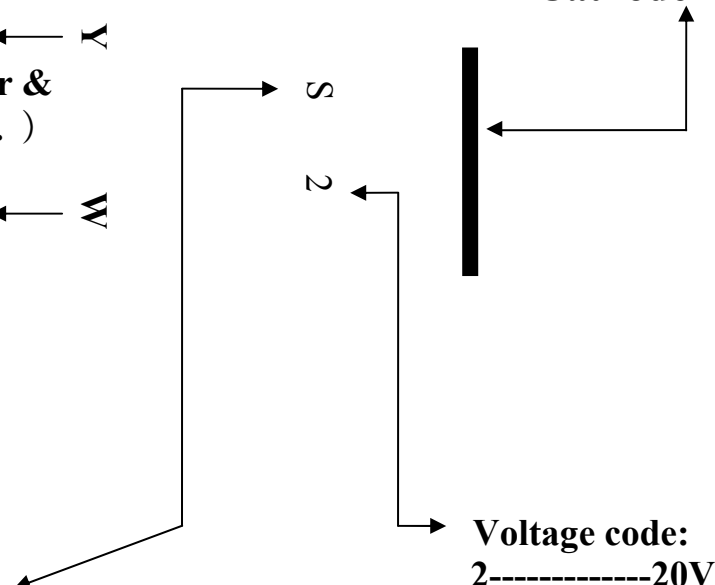
Schottky

S

2

Cathode Band

**Voltage code:**  
2-----20V  
3-----30V  
4-----40V  
5-----50V  
6-----60V  
8-----80V  
10-----100V



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123F/ SOD-123FL	-W	2,500	---	---	178	390*205*310	100,000	5.804

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