

**LOW Vf SCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE RANGE 20 to 40 Volts CURRENT 2.0 Ampere**

**FEATURES**

- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage
- \* High current capability
- \* High speed switching
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

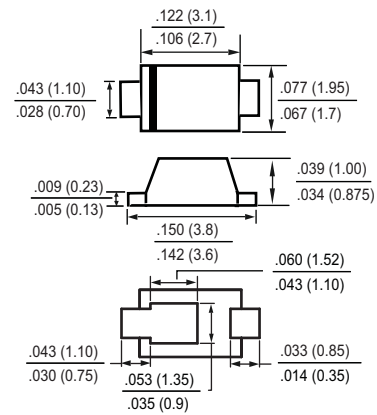
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Mounting position: Any

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Resistive or inductive load.



**SOD-123FL**



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	2SSL20L	2SSL30L	2SSL40L	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	40	40	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at $T_A=75^{\circ}C$	$I_O$	2.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	60			Amps
Typical Current Square Time	$I^2T$	14.94			$A^2S$
Typical Junction Capacitance (Note1)	$C_J$	110			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	110			$^{\circ}C/W$
	$R_{\theta JL}$	30			
Operating Temperature Range	$T_J$	-55 to + 150			$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to + 150			$^{\circ}C$

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

CHARACTERISTICS	SYMBOL	2SSL20L	2SSL30L	2SSL40L	UNITS
Maximum Instantaneous Forward Voltage at 2.0A DC	$V_F$	0.42			Volts
Maximum Average Reverse Current @ $T_A = 25^{\circ}C$	$I_R$	0.4			mAmps
at Rated DC Blocking Voltage @ $T_A = 125^{\circ}C$		200			mAmps

- NOTES :
1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
  2. "RoHS compliant".
  3. Thermal resistance: Mounted on PCB.

2023-05  
REV: E

## RATING AND CHARACTERISTICS CURVES ( 2SSL20L THRU 2SSL40L )

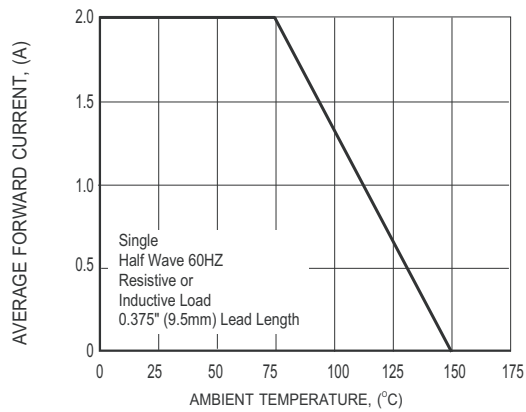


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

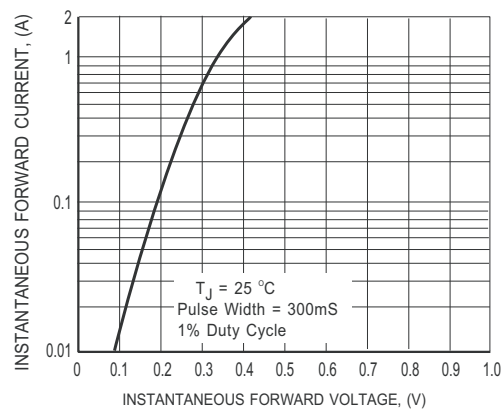


FIG.2 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

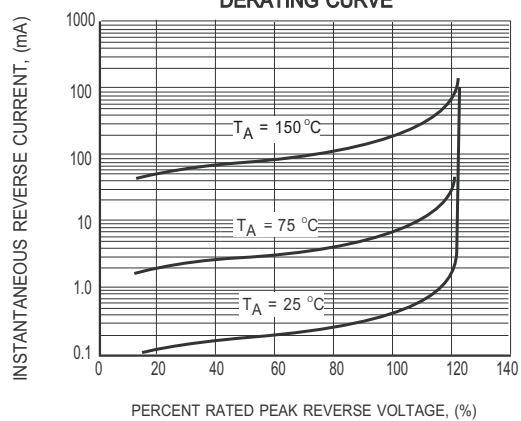


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

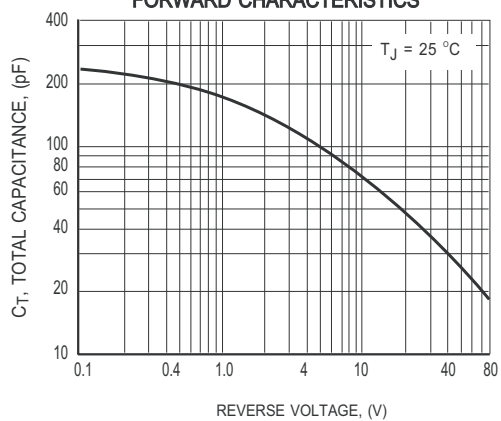


FIG.4 TYPICAL JUNCTION CAPACITANCE

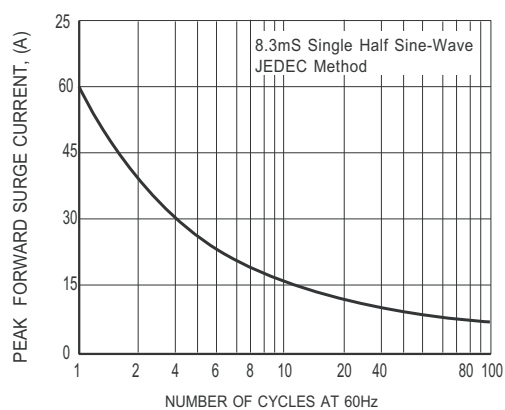
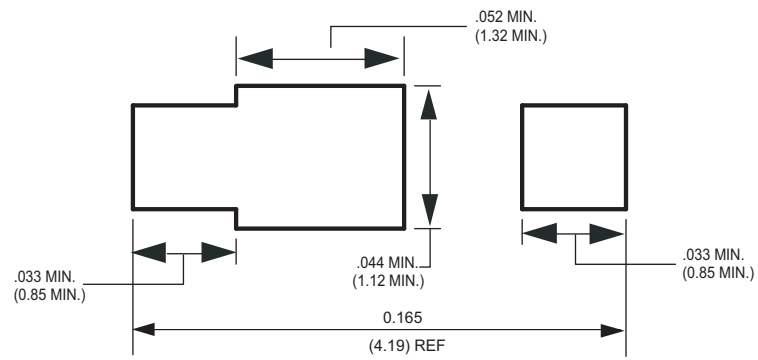


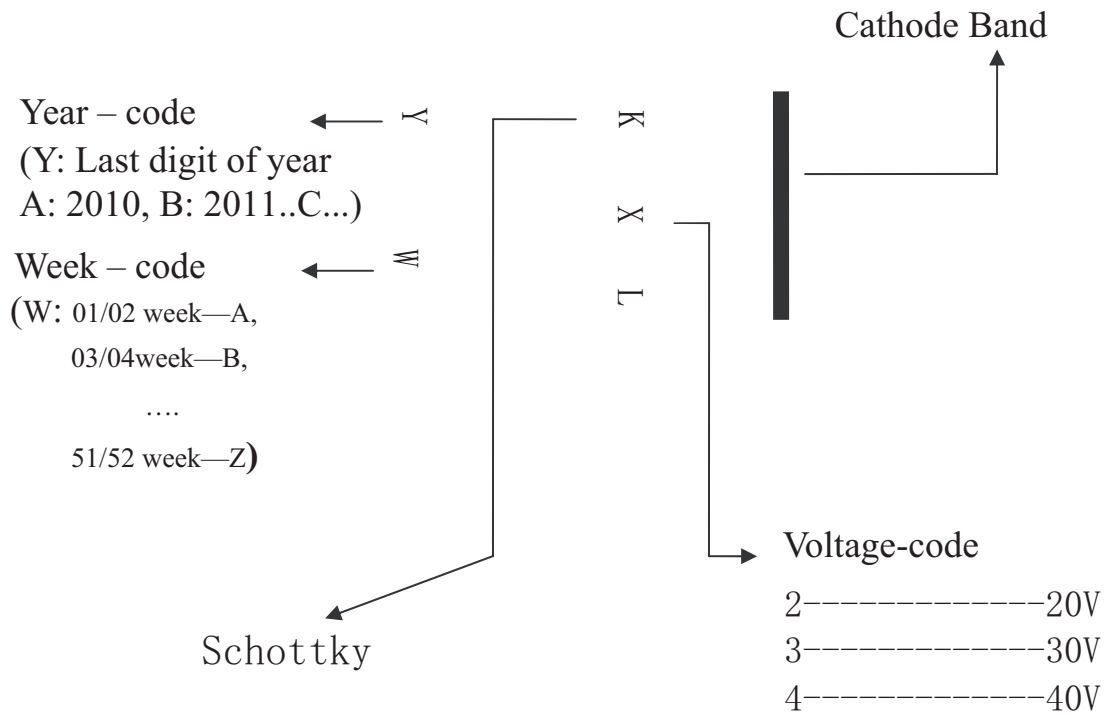
FIG.5 TYPICAL REVERSE CHARACTERISTICS

## 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

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