

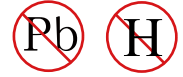


**YEA SHIN TECHNOLOGY CO., LTD**

**MBR120S THRU MBR1100S**

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

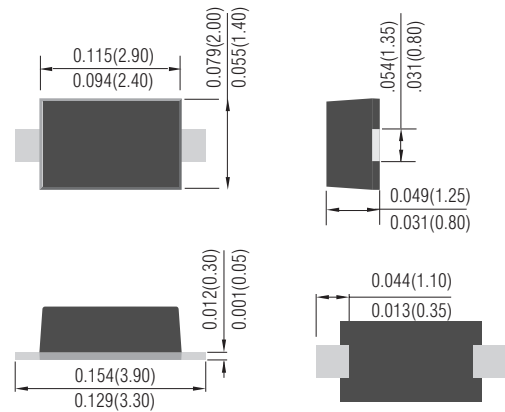
**VOLTAGE- 20 to 100 Volts CURRENT- 1.0 Amperes**



**FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- High current capacity ,low VF
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

**SOD-123S** Unit:inch(mm)



**MECHANICAL DATA**

- Case: SOD-123S molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

	SYMBOLS	MBR120S	MBR130S	MBR140S	MBR150S	MBR160S	MBR180S	MBR1100S	UNITS
<b>Marking Code</b>		<b>T2</b>	<b>T3</b>	<b>T4</b>	<b>T5</b>	<b>T6</b>	<b>T8</b>	<b>TA</b>	
<b>Maximum Repetitive Peak Reverse Voltage</b>	V <sub>RRM</sub>	20	30	40	50	60	80	100	V
<b>Maximum RMS Voltage</b>	V <sub>RMS</sub>	14	21	28	35	42	56	71	V
<b>Maximum DC Blocking Voltage</b>	V <sub>DC</sub>	20	30	40	50	60	80	100	V
<b>Maximum Average Forward Rectified Current</b>	I(AV)	1.0							A
<b>Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)</b>	I <sub>FSM</sub>	30.0							A
<b>Maximum Instantaneous Forward Voltage at 1.0A</b>	V <sub>F</sub>	0.52		0.66		0.83		V	
<b>Maximum DC Reverse Current (Note 1) Ta= 25°C at Rated DC Blocking Voltage Ta=100°C</b>	I <sub>R</sub>	0.5 20							mA
<b>Typical Junction Capacitance (NOTE 1)</b>	C <sub>j</sub>	60					25		pF
<b>Maximum Thermal Resistance</b>	Rθ <sub>JC</sub>	45							°C/W
<b>Operating Temperature Range</b>	T <sub>J</sub>	-50 to +125					-50 to +150		°C
<b>Storage Temperature Range</b>	T <sub>STG</sub>	-55 to +150							°C

NOTES:

1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

# DEVICE CHARACTERISTICS

## MBR120S THRU MBR1100S

### Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

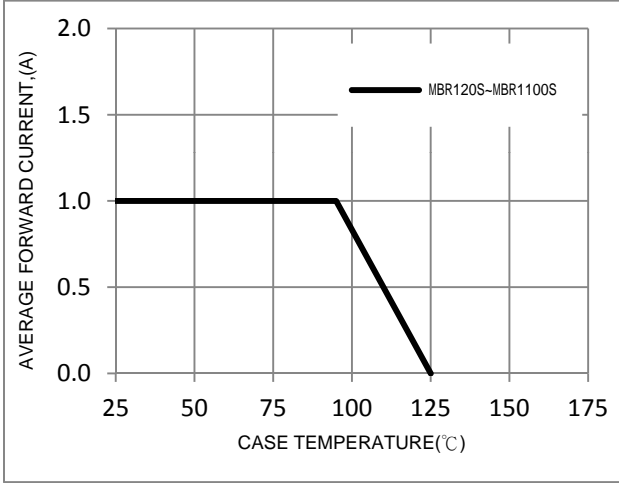


FIG. 2-Typical Forward Characteristics

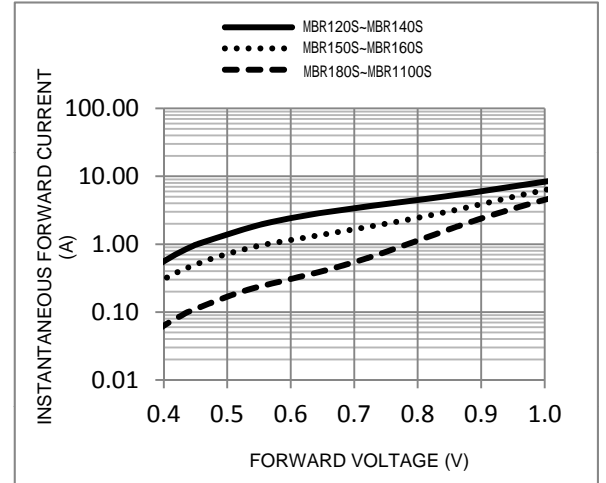


FIG. 3-Maximum Non-Repetitive Forward Surge Current

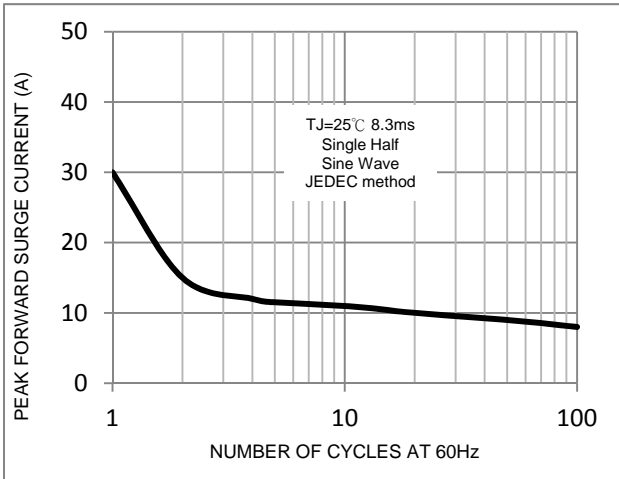


FIG. 4-Typical Reverse Characteristics

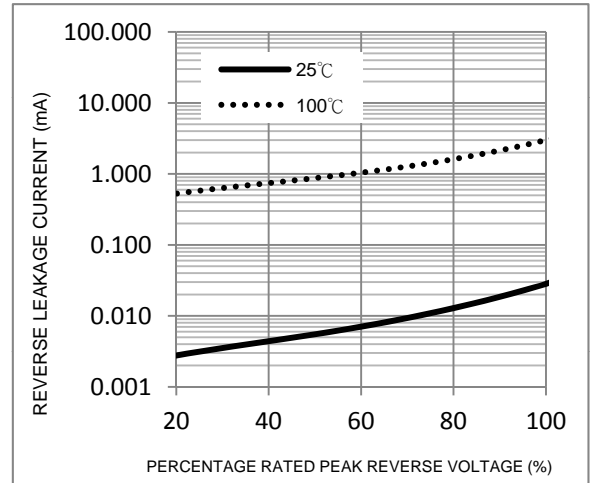


FIG. 5-Typical Junction Capacitance

