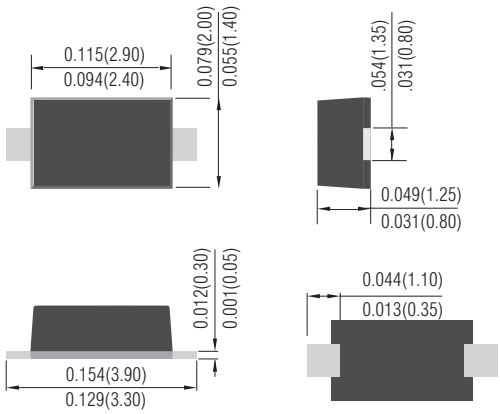
YEA SHIN TECHNOLOGY CO., LTD MBR120S-A THRU MBR1100S-A

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^{O}C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request
- AEC-Q101 qualified

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
Marking Code		**T2**	**T3**	**T4**	**T5**	**T6**	**T8**	**TA**	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	71	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.52			0.66		0.83		V
Maximum DC Reverse Current (Note 1) Ta= 25°C at Rated DC Blocking Voltage Ta=100°C	I_R	0.5 20							mA
Typical Junction Capactitance (NOTE 1)	C_j	60					25		pF
Maximum Thermal Resistance	$R\theta_{JC}$	45							°C/W
Operating Temperature Range	T_J	-50 to +125					-50 to +150		°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

NOTES:

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

DEVICE CHARACTERISTICS

MBR120S-A THRU MBR1100S-A

Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

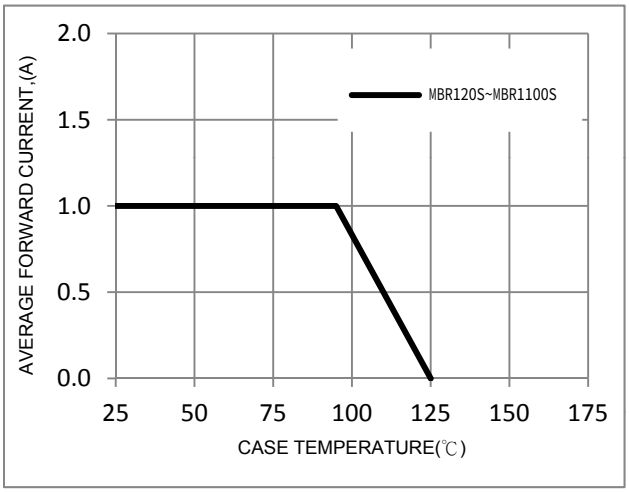


FIG. 2-Typical Forward Characteristics

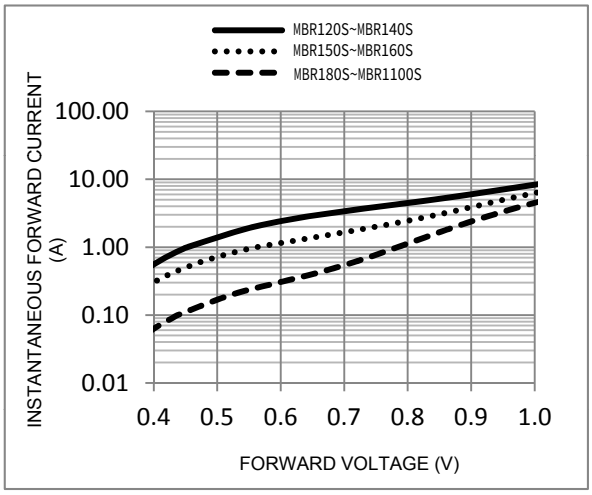


FIG. 3-Maximum Non-Repetitive Forward Surge Current

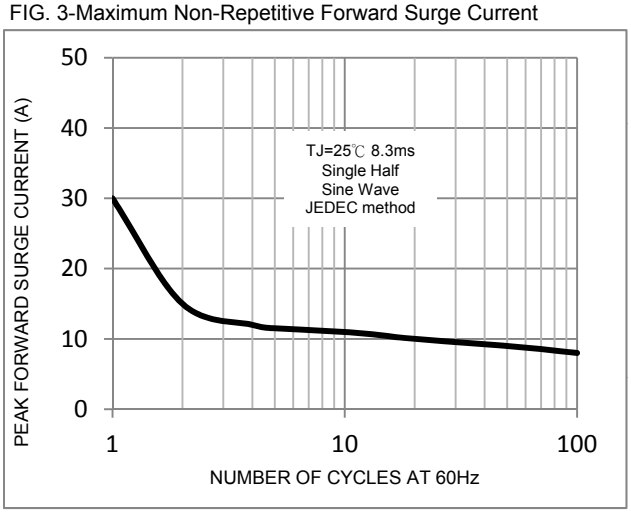


FIG. 4-Typical Reverse Characteristics

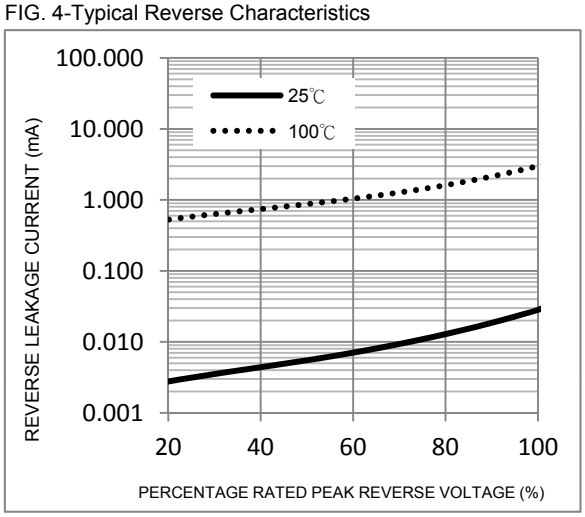


FIG. 5-Typical Junction Capacitance