YEA SHIN TECHNOLOGY CO., LTD

SR12 THRU SR120

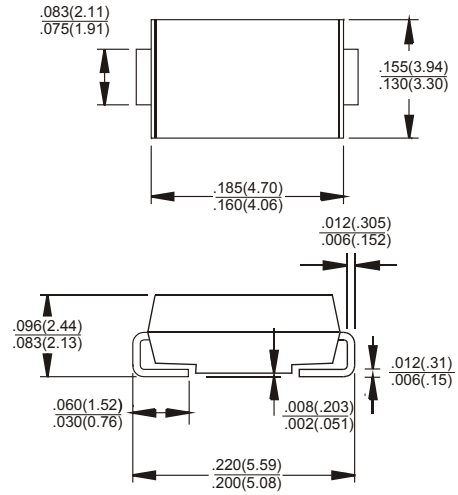
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE- 20 to 200 Volts CURRENT- 1.0 Ampere

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
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260°C /10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

SMB/DO-214AA Unit:inch(mm)



MECHANICAL DATA

- Case: JEDEC SMB/DO-214AA 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.

PARAMETER	SYMBOL	SR12	SR13	SR14	SR15	SR16	SR18	SR110	SR115	SR120	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current	I_F	1.0									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0									A
Maximum Instantaneous Forward Voltage IF=1A @ 25°C	V_F	0.50			0.70		0.85		0.87	0.90	V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I_R	0.5 10					0.2 5.0				mA
Typical Junction Capacitance(NOTE1)	C_j	90	70		60		50		35		pF
Typical Thermal Resistance	$R_{\theta Ja}$ $R_{\theta JC}$	90 60									°C/W
Operating Temperature Range	T_J	-55 to +125					-55 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

2.Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.1"*0.15" copper pad.

DEVICE CHARACTERISTICS

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FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

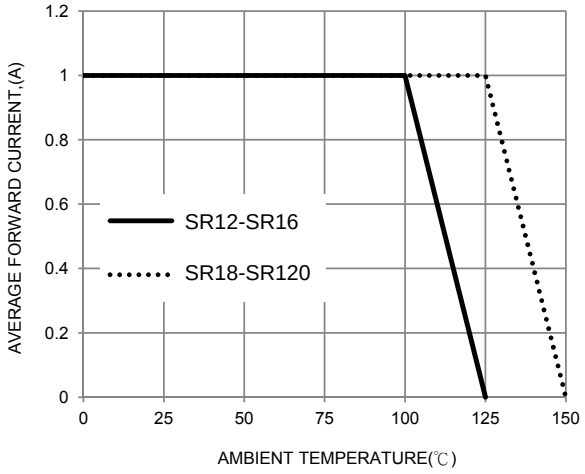

FIG. 2-TYPICAL FORWARD CHARACTERISTICS

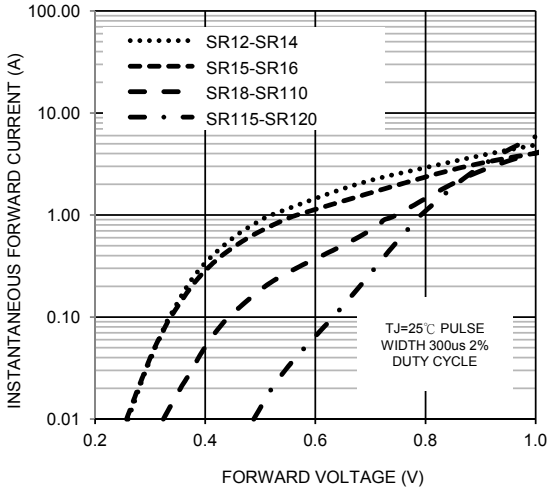

FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

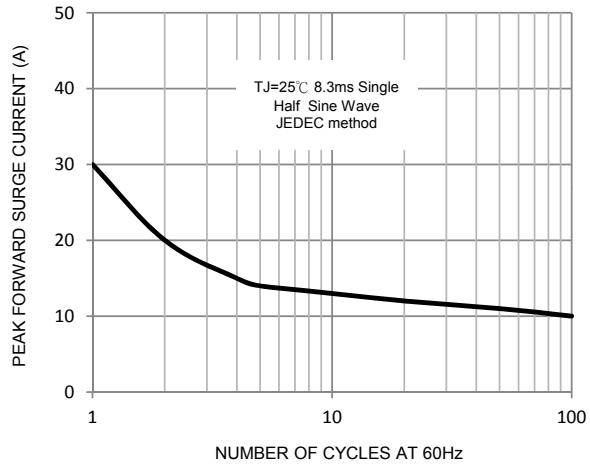

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

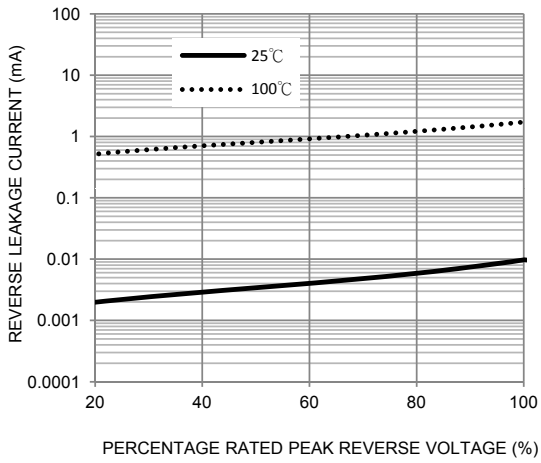

FIG. 5-TYPICAL JUNCTION CAPACITANCE