



**YEA SHIN TECHNOLOGY CO., LTD**  
**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE- 20 to 200 Volts CURRENT- 5.0 Amperes**

**SR52-A THRU SR520-A**



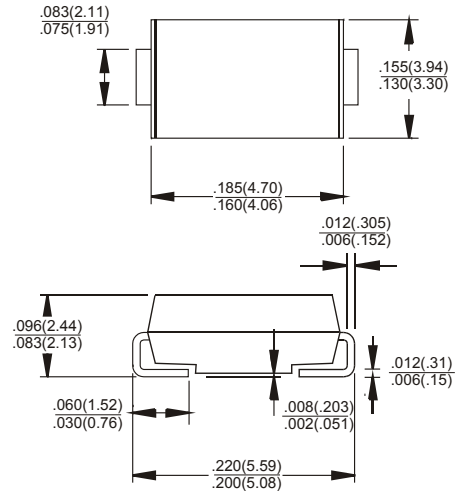
**FEATURES**

- 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  
AEC-Q101 qualified

**MECHANICAL DATA**

Case: JEDEC DO-214AA molded plastic  
 Terminals:Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes positive end (cathode)  
 Standard packaging: 12mm tape (EIA-481)  
 Weight: 0.003 ounce, 0.093 gram

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



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	SR52	SR53	SR54	SR55	SR56	SR58	SR59	SR510	SR515	SR520	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20.0	30.0	40.0	50.0	60.0	80.0	90.0	100.0	150.0	200.0	V
Maximum RMS Voltage	$V_{RMS}$	14.0	21.0	28.0	35.0	42.0	56.0	63.0	70.0	105.0	140.0	v
Maximum DC Blocking Voltage	$V_{DC}$	20.0	30.0	40.0	50.0	60.0	80.0	90.0	100.0	150.0	200.0	V
Maximum Average Forward Rectified Current at $T_L$ (See figure 1)	$I_{(AV)}$	5.0										A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100.0										A
Maximum Instantaneous Forward Voltage at 5.0A (Note A)	$V_F$	0.55		0.70		0.85		0.90		0.92		V
Maximum DC Reverse Current (Note A) $T_a= 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	$I_R$	0.5										mA
Maximum Thermal Resistance(Note B)	$R_{\theta JL}$	17.0										$^\circ\text{C/W}$
	$R_{\theta JA}$	55.0										
Operating Temperature Range	$T_J$	-55 to +175										$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +175										$^\circ\text{C}$

NOTES:

- A.Pulse Test with PW =300μsec, 2% Duty Cycle.  
 B.Mounted on P.C. Board with 14mm<sup>2</sup> (.013mm thick) copper pad areas.

# DEVICE CHARACTERISTICS

## SR52-A THRU SR520-A

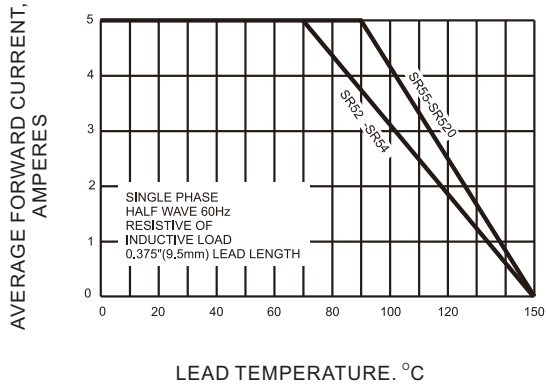


Fig. 1- FORWARD CURRENT DERATING CURVE

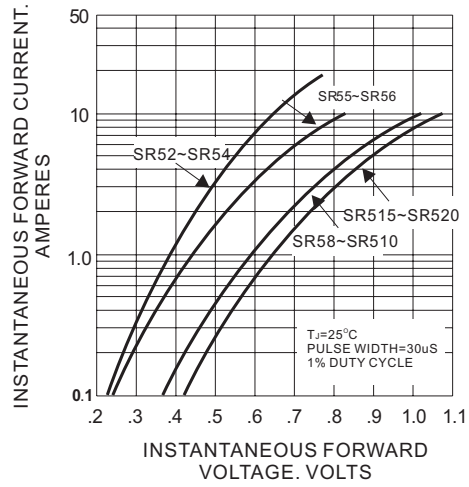


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

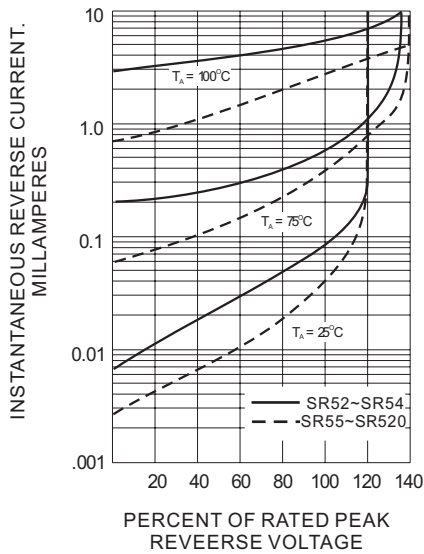


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

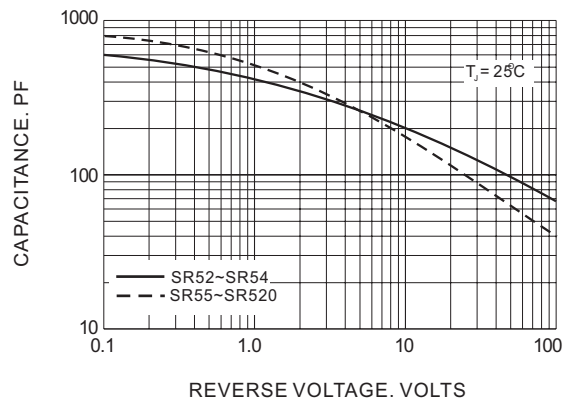


Fig. 4- TYPICAL JUNCTION CAPACITANCE

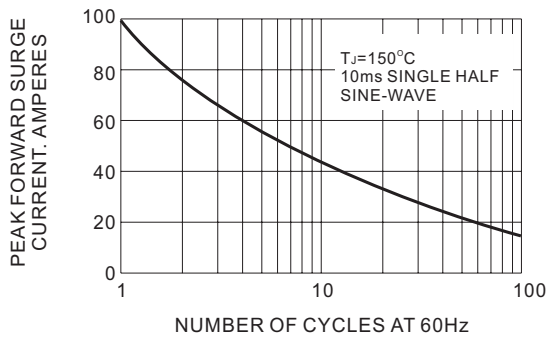


Fig. 5- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT