

# SR32 THRU SR39

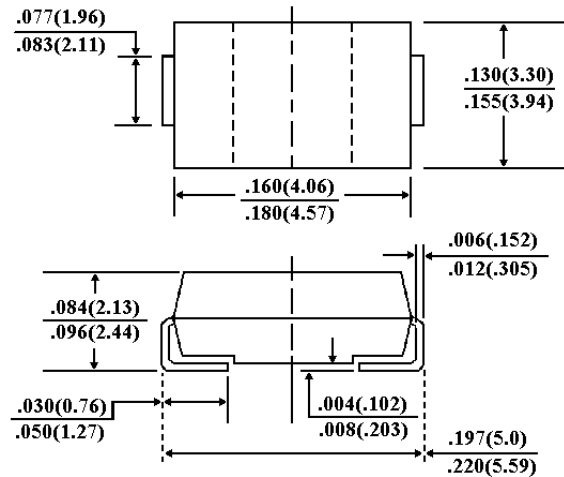
## MINI SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### VOLTAGE - 20 to 90 Volts    CURRENT - 3.0 Amperes

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier majority carrier conduction
- Low power loss, High efficiency
- High current capability, low  $V_F$
- 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

#### SMB/DO-214AA



Dimensions in inches and (millimeters)

#### MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode

Standard packaging: 12mm tape (EIA-481)

Weight: 0.003 ounce, 0.093 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	SR32	SR33	SR34	SR35	SR36	SR38	SR39	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	64	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	Volts
Maximum Average Forward Rectified Current at $T_L$ (See Figure 1)	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	80							Amps
Maximum Instantaneous Forward Voltage at 3.0A (Note 1)	$V_F$	0.50			0.70		0.85		Volts
Maximum DC Reverse Current $T_A=25$ °C (Note 1) At Rated DC Blocking Voltage $T_A=100$ °C	$I_R$				0.5				mA
					20.0				
Maximum Thermal Resistance (Note 2)	$R_{\theta KJL}$ $R_{\theta KJA}$				17				°C/W
					55				
Operating Junction Temperature Range	$T_J$	-50 to +125							°C
Storage Temperature Range	$T_{STG}$	-50 to +150							°C

#### NOTES:

1. Pulse Test with PW=300 µs sec, 2% Duty Cycle.
2. Mounted on P.C.Board with 5.0mm<sup>2</sup> (.013mm thick) copper pad areas.

RATING AND CHARACTERISTIC CURVES

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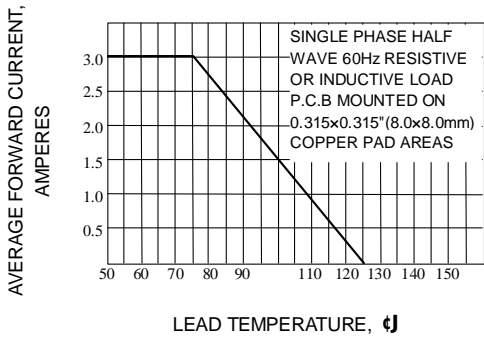
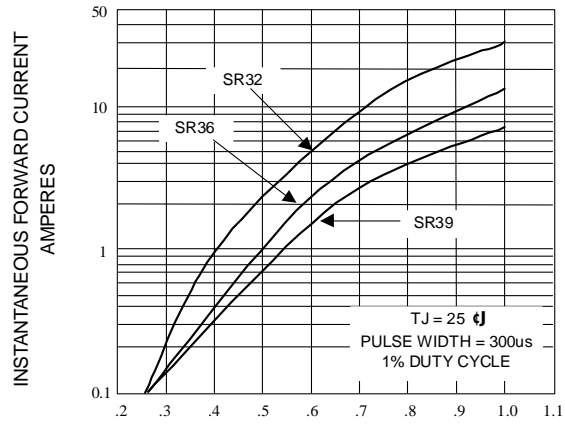


Fig. 1-FORWARD CURRENT DERATING CURVE



TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

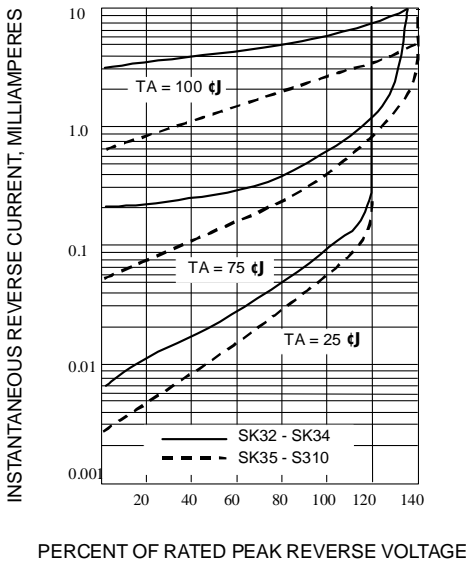


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

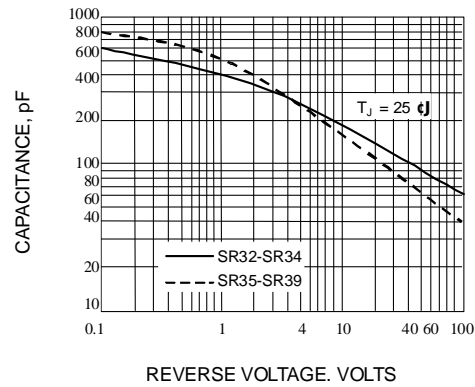


Fig. 4-TYPICAL JUNCTION CAPACITANCE

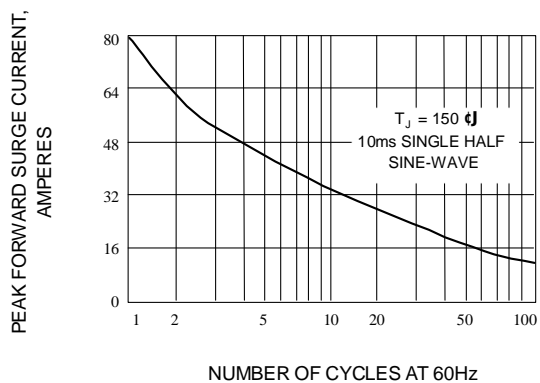


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT