



# SR102 THRU SR110

## 1.0 AMP. SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE RANGE**  
20 to 110 Volts  
**CURRENT**  
1.0 Amperes

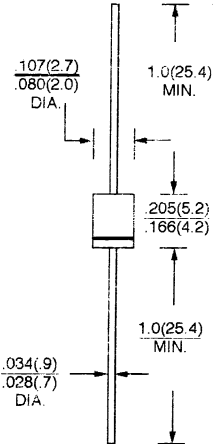
### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability

### MECHANICAL DATA

- \* Case: DO - 41 Molded plastic
- \* Epoxy: UL 94V - 0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL - STD - 202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Weight: 0.33grams

### DO-41



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

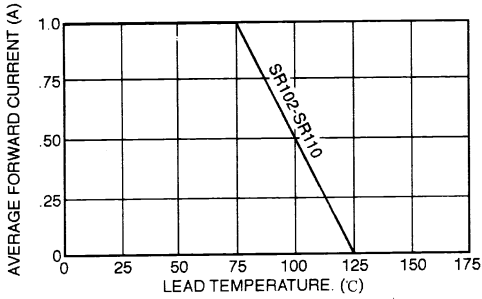
Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	SR102	SR103	SR104	SR105	SR106	SR108	SR110	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	110	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	77	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	110	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current. (8.3 ms, half sine)	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage @ 1.0A (Note 1)	$V_F$	0.570			0.700		0.850		V
Maximum D. C Reverse Current @ $T_A = 25^\circ C$ at Rated D. C Blocking Voltage @ $T_A = 100^\circ C$	$I_R$				1.0				mA
					10				
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$				50				$^\circ C/W$
Typical Junction Capacitance (Note 3)	$C_J$	110					80		pF
Operating and Storage Temperature Range	$T_J/T_{STG}$	- 65 to + 125 / - 65 to + 150							$^\circ C$

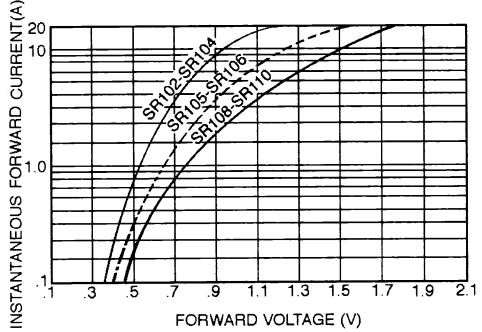
- NOTE:** (1) Pulse test:  $t_p = 300\mu s$ , 1% duty cycle  
 (2) Thermal Resistance Junction to Ambient Vertical PC Board Mounting, .375" (9.5mm) Lead Length with 1.5 x 1.5cm (38 x 38mm) copper pads.  
 (3) Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

## RATINGS AND CHARACTERISTIC CURVES (SR102 THRU SR110)

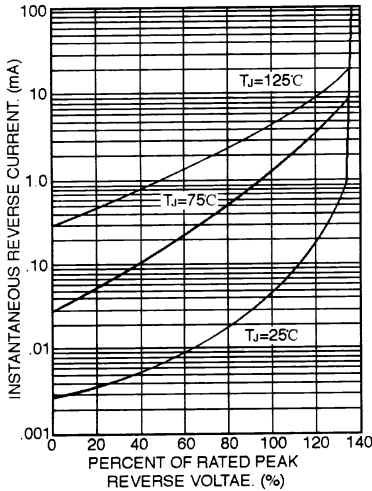
**FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE**



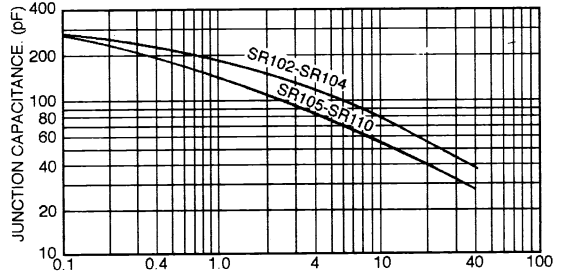
**FIG. 2 - TYPICAL FORWARD CHARACTERISTICS**



**FIG. 3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

