



SR102 THRU SR110

1.0 AMP. SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE
20 to 110 Volts
CURRENT
1.0 Amperes

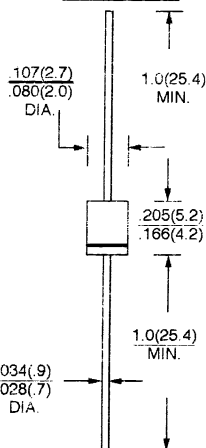
FEATURES

- * 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 10							mA
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: $t_p = 300\mu\text{s}$, 1% duty cycle

(2) Thermal Resistance Junction to Ambient Vertical PC Board Mounting, .375" (9.5mm) Lead Length with $1.5 \times 1.5\text{cm}$ (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

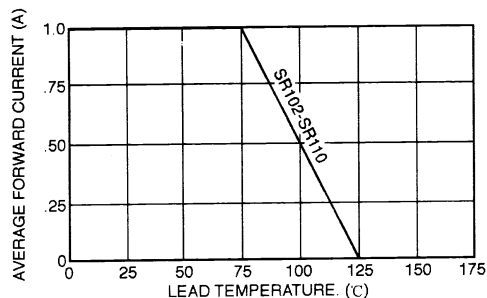


FIG. 2 - TYPICAL FORWARD CHARACTERISTICS

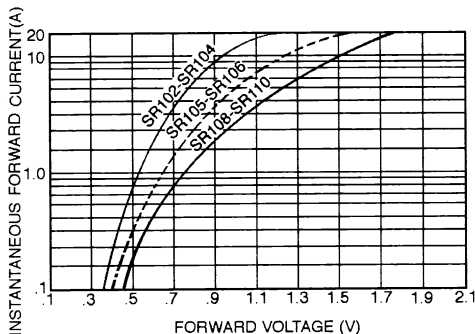


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

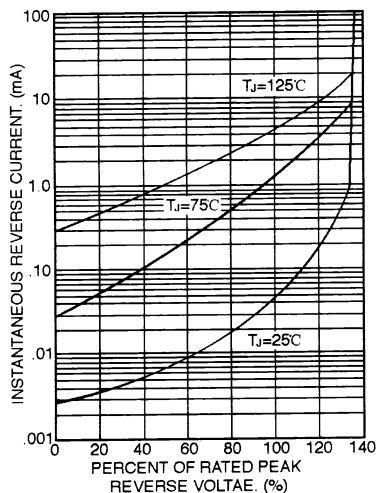


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

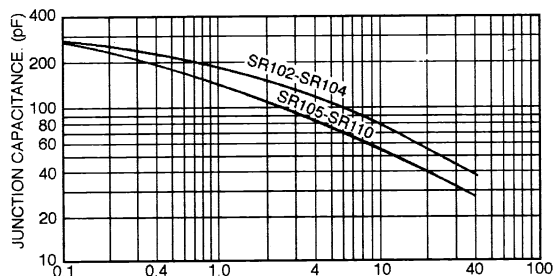


FIG. 5 - MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

