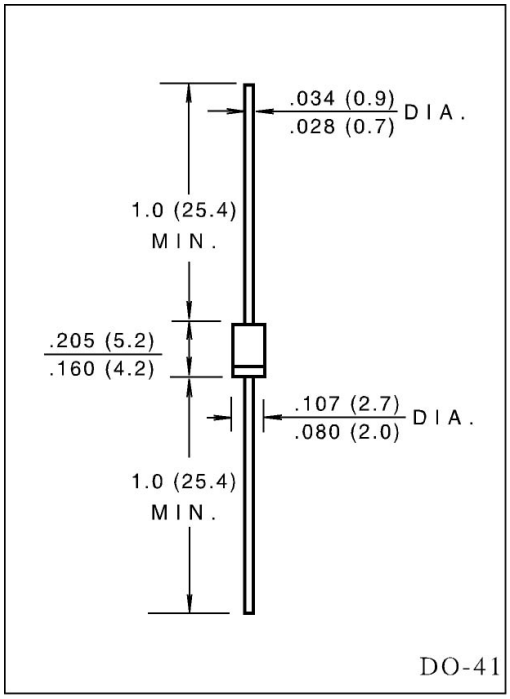
SCHOTTKY BARRIER RECTIFIER

SR102 THRU SR108

FEATURES

- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed: 250℃/10 seconds, 0.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension.



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denoted cathode end.
- Lead: Plastic axial lead, solderable per MIL - STD - 202E method 208C
- Mounting position : Any
- Weight: 0.012 ounce, 0.33 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

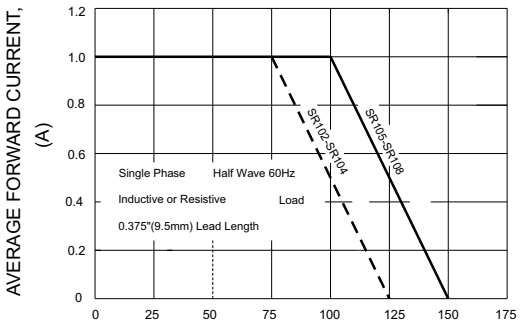
- Ratings at 25℃ ambient temperature unless otherwise specified
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%

		SYMBOLS	SR102	SR103	SR104	SR105	SR106	SR108	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	30	40	50	60	80	Volts
Maximum RMS Voltage		V_{RMS}	14	21	28	35	42	57	Volts
Maximum DC Blocking Voltage		V_{DC}	20	30	40	50	60	80	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at	T_L = 75℃ (SR102-104) T_L = 100℃ (SR105-108)	$I_{(AV)}$	1.0						Amp
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)		I_{FSM}	40						Amps
Maximum Instantaneous Forward Voltage at 1.0A		V_F	0.55			0.70		0.80	Volts
Maximum DC Reverse Current at rate DC blocking voltage (Note 1)	T_A = 25℃	I_R	1.0						mA
	T_A = 100℃		10						
Typical Junction Capacitance (Note 2)		C_j	110						pF
Typical Thermal Resistance (Note 3)		$R_{\theta JA}$	50						℃/W
Operating Temperature Range		T_J	(-65 to +125)			(-65 to +150)			℃
Storage Temperature Range		T_{STG}	(-65 to +150)						℃

NOTES:

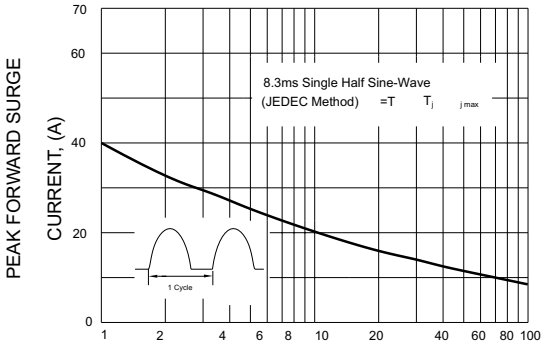
1. Pulse test: 300 μs pulse width, 1% duty cycle.
2. Measured at 1MHz and applied reverse voltage of 4.0 volts.
3. Thermal resistance from junction to ambient P.C.B. mounted with 0.375" (9.5mm) lead length with 1.5" x 1.5" (38 X 38mm) copper pads.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE



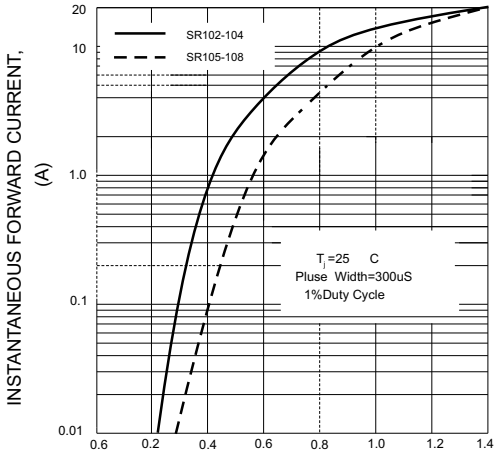
LEAD TEMPERATURE, (C)

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



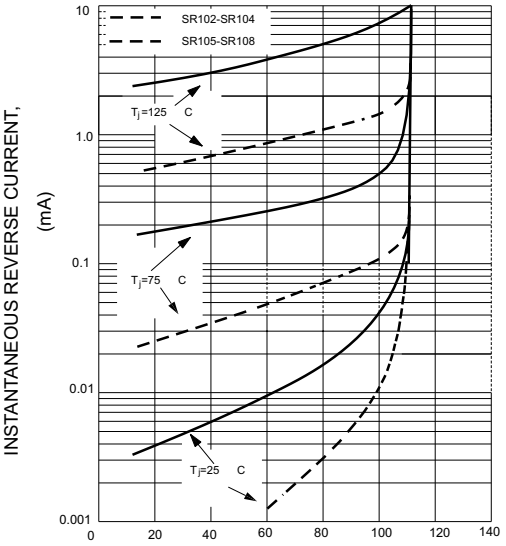
NUMBER OF CYCLES AT 60 Hz

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



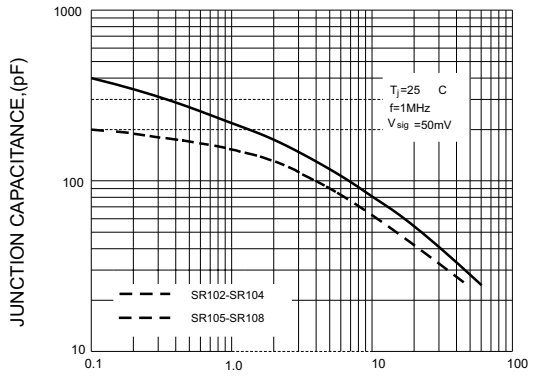
INSTANTANEOUS FORWARD VOLTAGE,(V)

FIG.4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED PEAK REVERSE VOLTAGE,(%)

FIG.5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE,(V)