



SCHOTTKY BARRIER RECTIFIER

SR102 THRU SR108

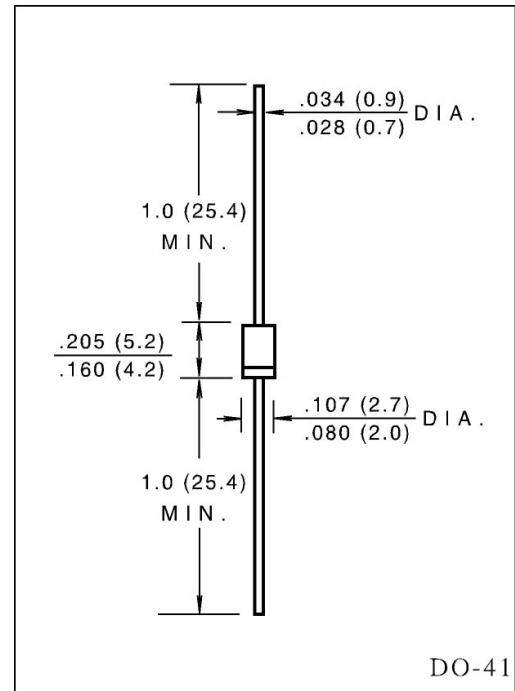
VOLTAGE RANGE 20 to 80 Volts
CURRENT 1.0 Ampere

FEATURES

- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed:
250°C/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°C 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	$T_L = 75^\circ\text{C}$ (SR102-104) $T_L = 100^\circ\text{C}$ (SR105-108)	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)	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	I_R						mA
Typical Junction Capacitance (Note 2)	C_j	110						pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50						°C/W
Operating Temperature Range	T_J	(-65 to +125)			(-65 to +150)			°C
Storage Temperature Range	T_{STG}	(-65 to +150)						°C

NOTES:

1. Pulse test: 300 μ s 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.



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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

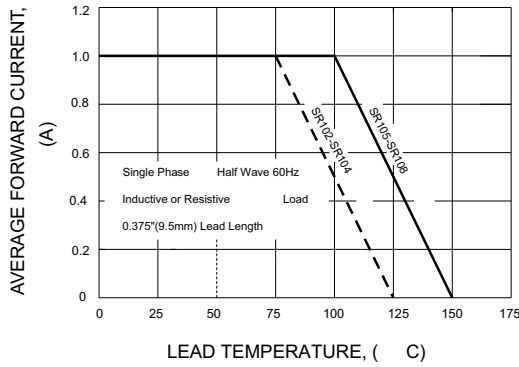


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

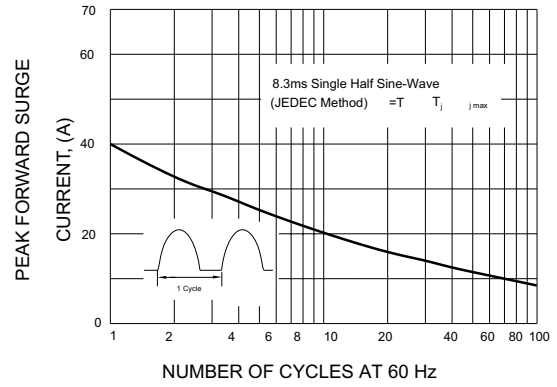


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

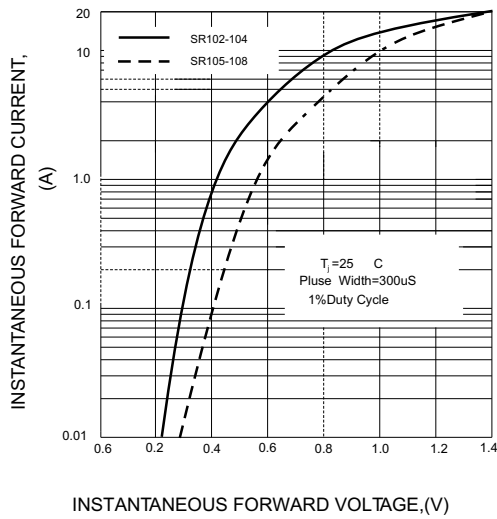


FIG.4-TYPICAL REVERSE CHARACTERISTICS

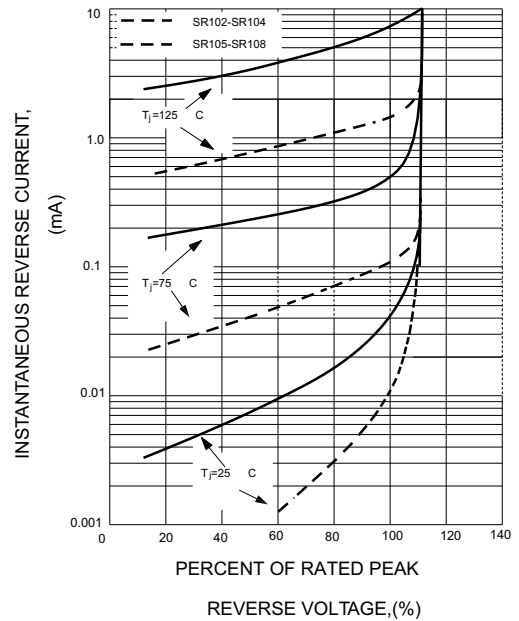


FIG.5-TYPICAL JUNCTION CAPACITANCE

