



SCHOTTKY BARRIER RECTIFIER

SR302 THRU SR310

VOLTAGE RANGE
CURRENT

20 to 100 Volts
3.0 Ampere

FEATURES

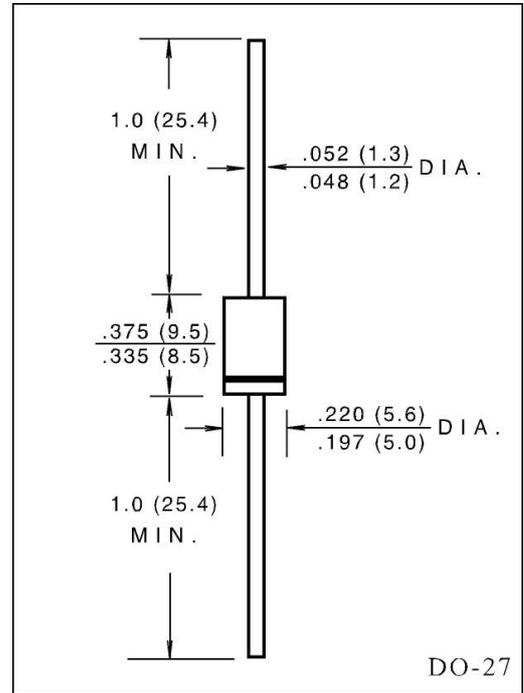
- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed:
250 °C/10 seconds, 0.375" (9.5mm) lead length
at 5 lbs. (2.3kg) tension.

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: 0.042 ounce, 1.19 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



	SYMBOLS	SR302	SR303	SR304	SR305	SR306	SR308	SR310	UNIT	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	Volts	
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	Volts	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	Volts	
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at	$I_{(AV)}$	$T_L = 75^\circ\text{C}$ (SR302-304) $T_L = 100^\circ\text{C}$ (SR305-308)							3.0	Amps
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)	I_{FSM}								150	Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	0.55		0.75		0.80			Volts	
Maximum DC Reverse Current at rate DC blocking voltage (Note 1)	I_R	$T_A = 25^\circ\text{C}$							3.0	mA
		$T_A = 100^\circ\text{C}$							30	
Typical Junction Capacitance (Note 2)	C_j								200	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$								40	°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 2.5" x 2.5" (63.5 X 63.5mm) copper pads.

RATINGS AND CHARACTERISTIC CURVES SR302 THRU SR310

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

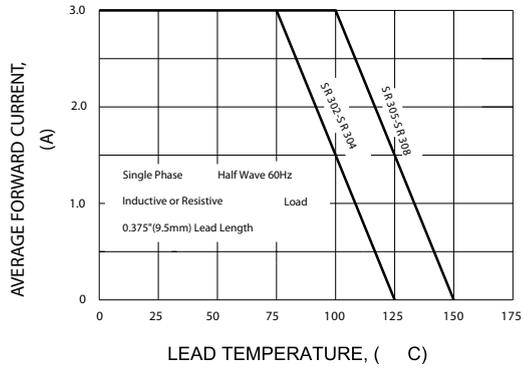


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

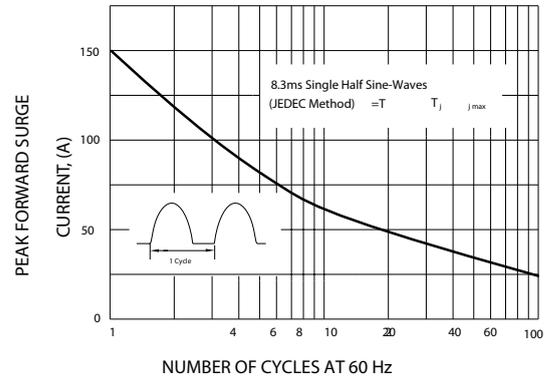


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

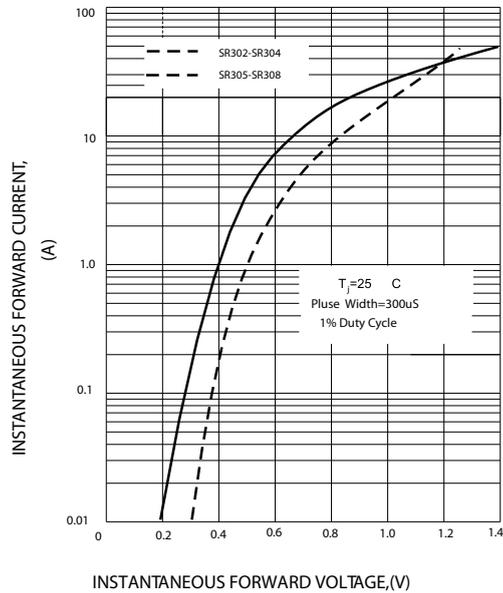


FIG.4-TYPICAL REVERSE CHARACTERISTICS

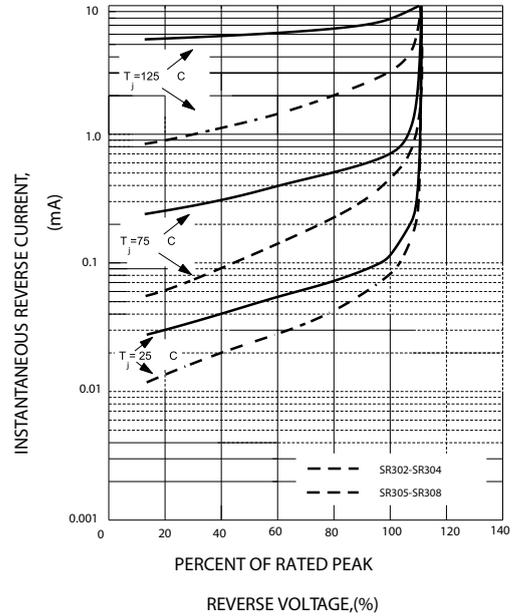


FIG.5-TYPICAL JUNCTION CAPACITANCE

