



SCHOTTKY BARRIER RECTIFIER

SR302 THRU SR310

VOLTAGE RANGE

20 to 100 Volts

CURRENT

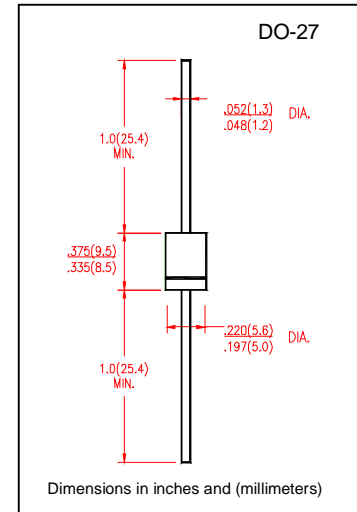
3.0 Ampere

FEATURES

- Fast switching
- Low forward voltage
- Low power loss for high efficiency
- High surge capability
- High temperature soldering guaranteed
250°C/10 seconds, 0.373" (9.5mm) lead length

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: solderable per MIL-STD-202E method 208C
- Polarity: Color band denoted cathode end
- 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
- For 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, (Note 1) $T_L = 100^\circ\text{C}$	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80							Amps
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	0.55		0.75		0.85		Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage per element (Note 1)	$T_A = 25^\circ\text{C}$	0.5							mA
	$T_A = 125^\circ\text{C}$	30							
Typical Junction Capacitance (measured at 1.0Hz and applied reverse voltage of 4.0V)	C_J	250							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	15							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	(-55 to +150)							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-55 to +150)							$^\circ\text{C}$

Notes:

1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Thermal resistance from junction to ambient P.C.B. mounted with 0.375" (9.5mm) lead length with 2.5" \times 2.5" (63.5 \times 63.5cm) copper pads

SR320 THRU SR3100

VOLTAGE RANGE	20 to 100 Volts
CURRENT	3.0 Ampere

RATING AND CHARACTERISTIC CURVES SR302 THRU SR310

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

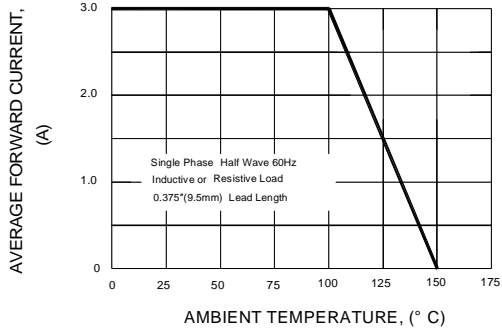


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

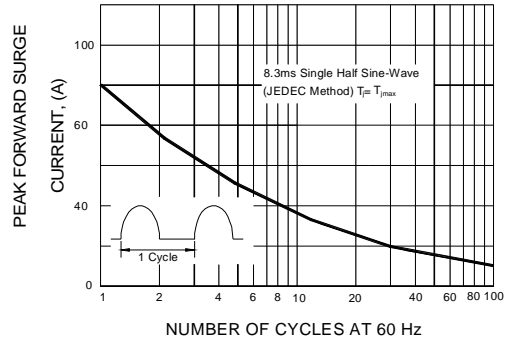


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

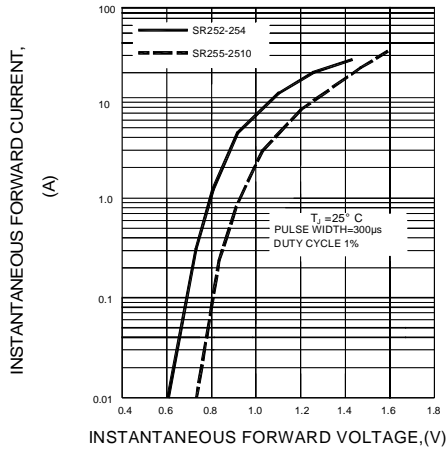


FIG.4-TYPICAL REVERSE CHARACTERISTICS

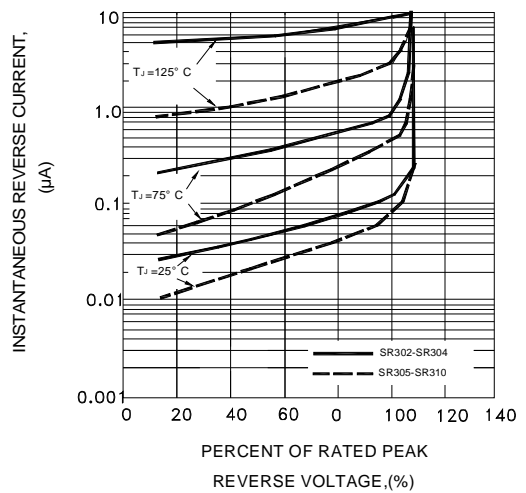


FIG.5-TYPICAL JUNCTION CAPACITANCE

