



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 2790-0314 FAX: 2790-0206



SCHOTTKY BARRIER RECTIFIER

SR502 THRU SR508

VOLTAGE RANGE

20 to 80 Volts

CURRENT

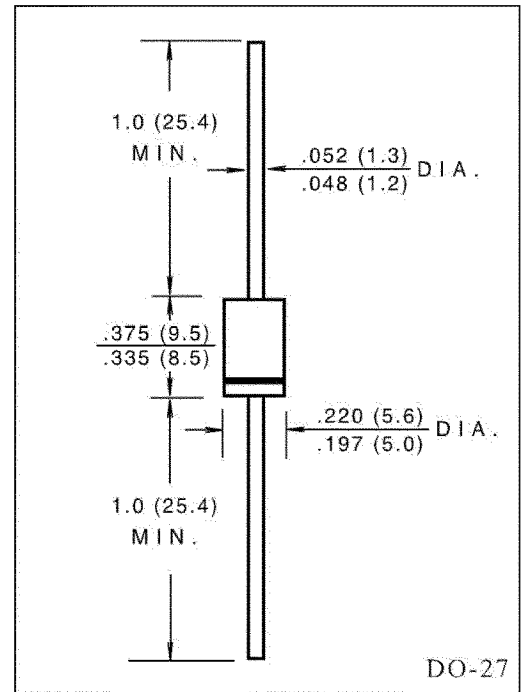
5.0 Ampere

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.
- For capacitive load derate current by 20%

	SYMBOLS	SR502	SR503	SR504	SR505	SR506	SR508	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	$I_{(AV)}$	5.0							Amps
		$T_L = 60^\circ C$ (SR502-504)							
		$T_L = 85^\circ C$ (SR505-508)							
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 5.0A	V_F	0.57			0.70		0.80	Volts	
Maximum DC Reverse Current at rated DC blocking voltage (Note 1)	I_R	$T_A = 25^\circ C$					5.0		mA
		$T_A = 100^\circ C$					50		
Typical Junction Capacitance (Note 2)	C_j	550			450			pF	
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	25							°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 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 2.5" x 2.5" (63.5 X 63.5mm) copper pads.



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RATINGS AND CHARACTERISTIC CURVES SR502 THRU SR508

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

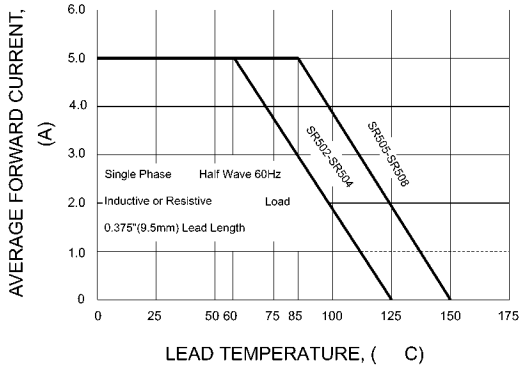


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

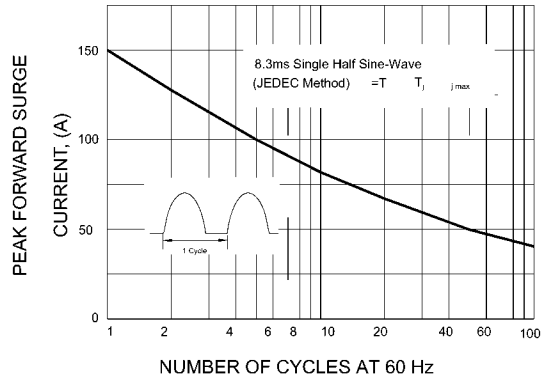


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

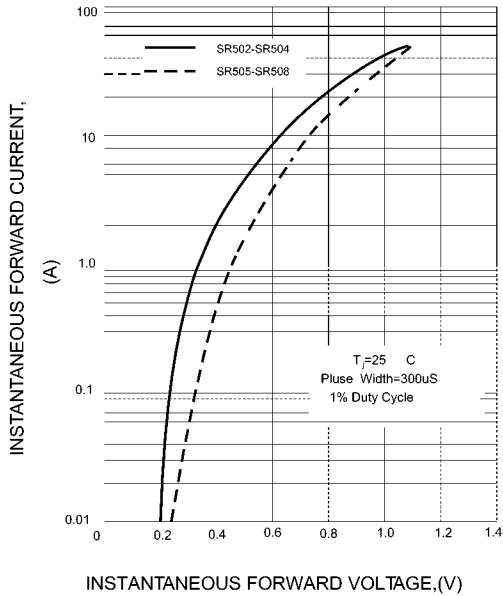


FIG.4-TYPICAL REVERSE CHARACTERISTICS

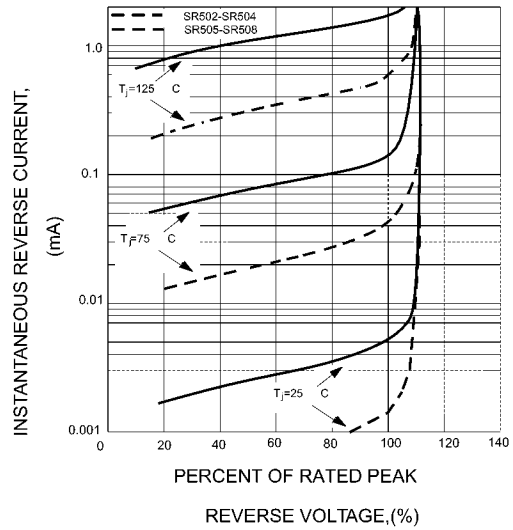


FIG.5-TYPICAL JUNCTION CAPACITANCE

