



## SCHOTTKY BARRIER RECTIFIER

SR252 THRU SR2510

VOLTAGE RANGE

20 to 100 Volts

CURRENT

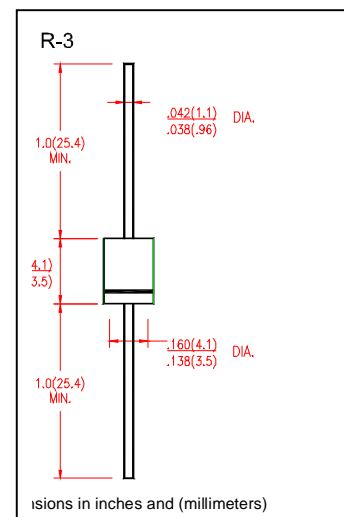
2.5 Ampere

### FEATURES

- Fast switching
- Low forward voltage
- Low power loss for high efficiency
- High surge capacity
- 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 denotes cathode end
- Mounting position: Any
- Weight: 0.014ounce, 0.39 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	SR252	SR253	SR254	SR255	SR256	SR258	SR2510	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) $T_L = 100^\circ\text{C}$	$I_{(AV)}$	2.5							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	70							Amps
Maximum Instantaneous Forward Voltage @ 2.5A	$V_F$	0.55		0.70		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
	$T_A = 100^\circ\text{C}$	10							
Typical Junction Capacitance (NOTE 3)	$C_j$	200							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	20							$^\circ\text{C}/\text{W}$
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  $\mu\text{s}$  pulse width, 1% duty cycle
2. thermal resistance from junction to ambient P.C.B. mounted with 0.375"(9.5mm) lead length with 1.5"  $\times$  1.5" (38  $\times$  38mm) Copper pads
3. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts



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## RATING AND CHARACTERISTIC CURVES SR252 THRU SR2510

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

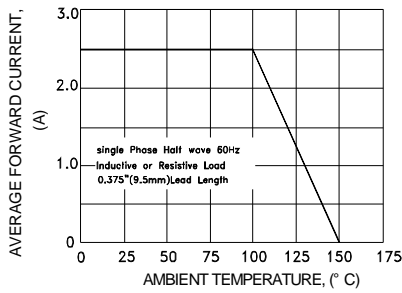


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

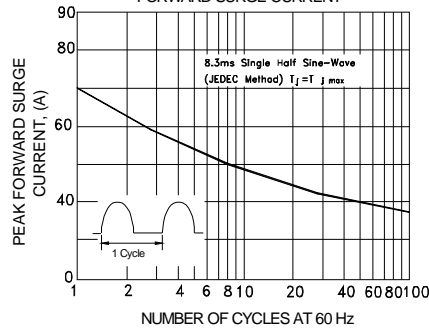


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

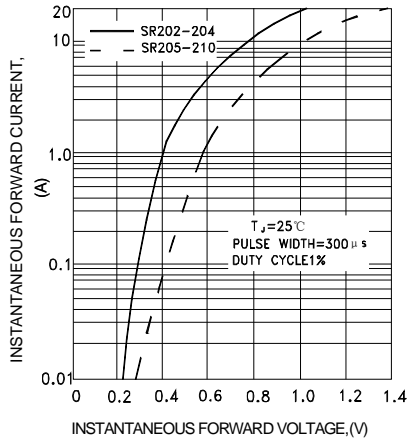


FIG.4-TYPICAL REVERSE CHARACTERISTICS

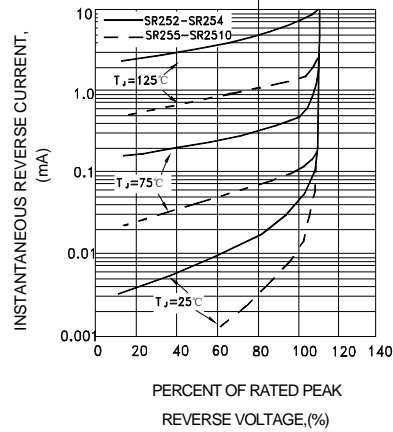


FIG.5-TYPICAL JUNCTION CAPACITANCE

