



SR502 THRU SR510

5.0 AMPS. SCHOTTKY BARRIER RECTIFIERS



VOLTAGE RANGE
20 to 100 Volts
CURRENT
5.0 Amperes

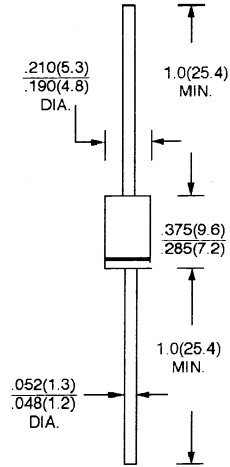
FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

MECHANICAL DATA

- * Case: DO-201 AD Molded plastic
- * Epoxy: UL 94V - 0 rate flame retardant
- * Lead: Axial leads, solderable per MIL - STD - 202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Weight: 1.1 grams

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SYMBOLS	SR502	SR503	SR504	SR505	SR506	SR508	SR510	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{F(AV)}$	5.0							A
Peak Forward Surge Current. (8.3 ms, half sine)	I_{FSM}	120							A
Maximum Instantaneous Forward Voltage @ 5.0A (Note 1)	V_F	0.570		0.700		0.850			V
Maximum D. C Reverse Current at Rated D. C Blocking Voltage	I_R	1.0 50							mA
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	15			10				°C/W
Typical Junction Capacitance (Note 3)	C_J	500			380				pF
Operating and Storage Temperature Range	T_J	- 65 to + 125 / - 65 to + 150							°C

NOTE: (1) Pulse test: 300 μ s pulse width, 1% duty cycle
(2) Thermal Resistance Junction to Ambient Vertical PC Board Mounted, .0.500" (12.7mm) Lead Length with 2.5 x 2.5" (63.5 x 63.5mm) copper pad.
(3) Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

RATINGS AND CHARACTERISTIC CURVES (SR502 THRU SR510)

FIG. 1 - FORWARD CURRENT DERATING CURVE

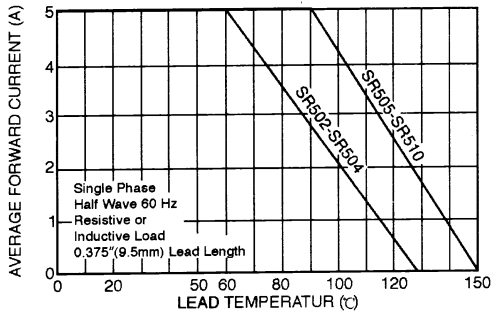


FIG. 2

MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

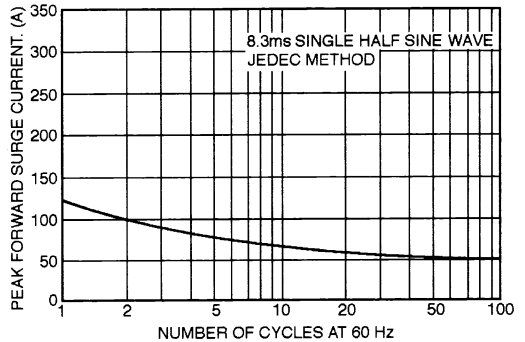


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

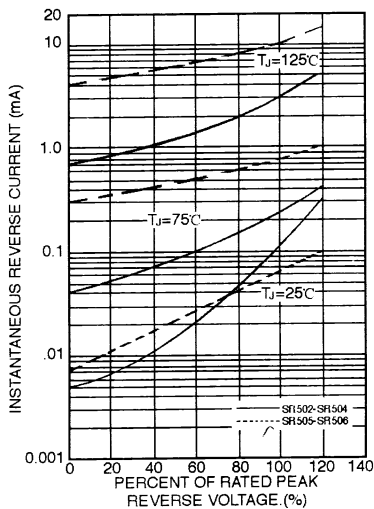


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

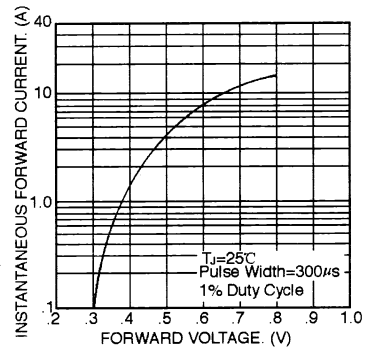


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

