

SR520 THRU SR5A0

SCHOTTKY BARRIER RECTIFIERS

FEATURES:

- High reliability
- High surge current capability
- Low forward voltage drop
- High current capability
- Epitaxial construction

MECHANICAL DATA

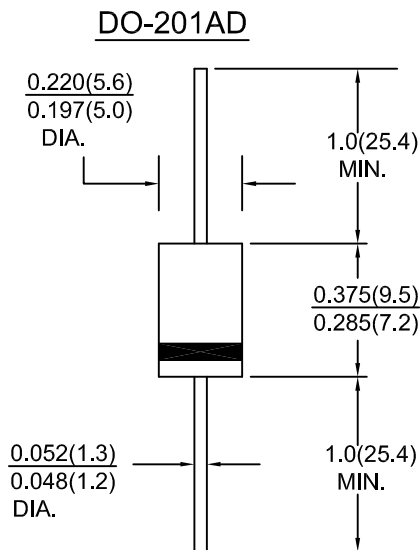
Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy

Terminals : Axial leads, solderable per MIL-STD-202 Method 208

Polarity : Color band on body denotes cathode end

Mounting Position : Any

Weight : 1.12 grams, 0.040 ounce



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	SR52	SR53	SR54	SR55	SR56	SR58	SR5A0	Units
Maximum recurrent peak reverse voltage	VRRM	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	VRMS	14	21	28	35	42	56	70	Volts
Maximum DC blocking voltage	VDC	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current	I(AV)	5.0							Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	IFSM	120							Amps
Maximum instantaneous forward voltage at 5.0 A(NOTE 3)	VF	0.55			0.70		0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 3) Ta=25°C Ta=100°C	IR	1.0				1.5		mA	
		50		25					
Typical thermal resistance (note 1)	Rth-JA	25							°C/W
Typical junction capacitance (note 2)	Cj	500			400				pF
Operating junction temperature range	Tj	-65 to +125			-65 to +150				°C
Storage temperature range	Tstg	-65 to +150							°C

NOTES: 1. Thermal Resistance from junction to Ambient Vertical P.C.Board mounting,0.375"(9.5mm) Lead Length

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V_{DC}

3.Pulse test : 300 us pulse width, 1 % duty cycle

RATINGS AND CHARACTERISTIC CURVES SR520 THRU SR5A0

FIG.1-FORWARD CURRENT DERATING CURVE

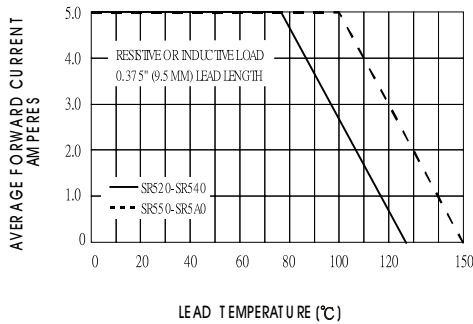


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

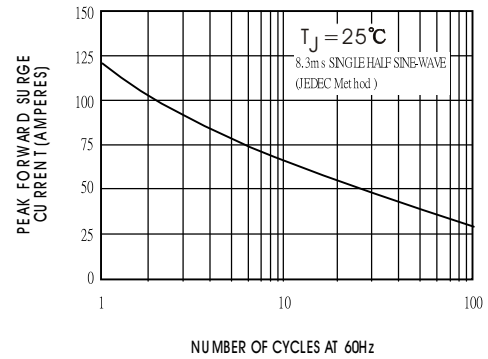


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

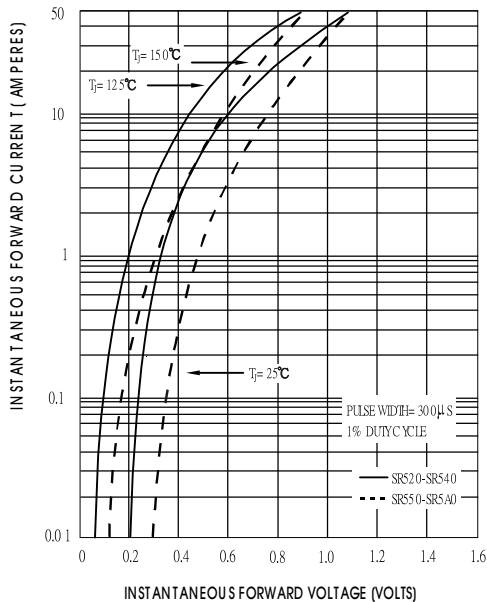


FIG.4-TYPICAL REVERSE CHARACTERISTICS

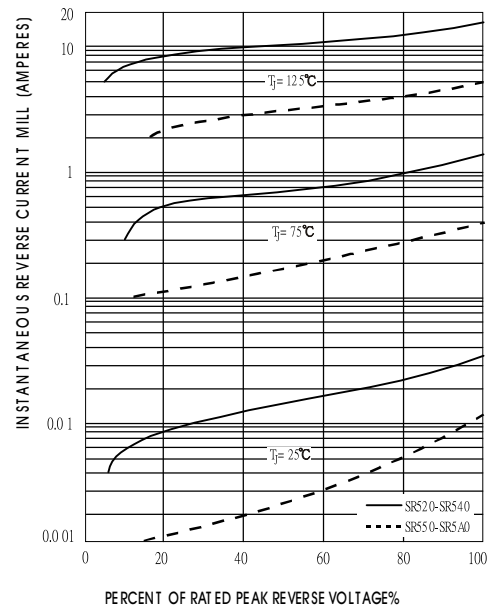


FIG.5-TYPICAL JUNCTION CAPACITANCE

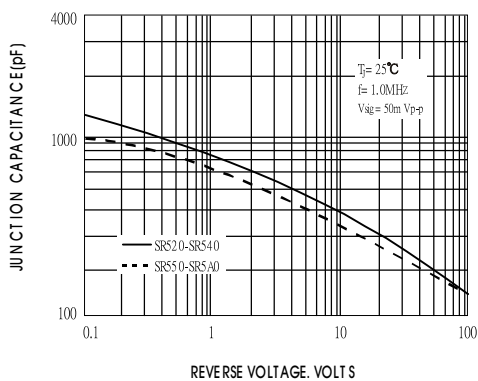


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

