

II. Schottky Rectifier

5.0A Schottky Rectifier SR520~SR5200

(Package: DO-201AD)

<p>FEATURES</p> <ul style="list-style-type: none"> • The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 • Construction utilizes void-free molded plastic technique • High forward surge current capability • High temperature soldering guaranteed <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : JEDEC DO-201AD molded plastic body • Terminals : Plated axial leads, solderable per MIL-STD-202E, Method 208C guaranteed • Polarity : Color band denotes cathode end • Mounting Position : Any • Weight : 1.18 grams 	<p>Case: DO-201AD Dimensions in inches and (millimeters)</p>
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Ratings & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	SR 520	SR 530	SR 540	SR 550	SR 560	SR 580	SR 5100	SR 5150	SR 5200	Units
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current at derating lead temperature	I_O	5.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100									Amps
Maximum instantaneous forward voltage at 5.0A DC	V_F	0.55		0.75		0.85				Volts	
Maximum average reverse current at rated DC blocking voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	I_R	0.2									mA
		2									
Typical thermal resistance (Note 1)	Rth-JA	25									°C/W
	Rth-JL	8									
Typical junction capacitance (Note 2)	C_j	500				400				PF	
Operating junction temperature range	T_j	-55 to +125				-55 to +150				°C	
Storage temperature range	T_{stg}	-55 to +150									°C

Notes:

1. Thermal resistance : At 9.5mm lead lengths, PCB mounted.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

Ratings and Characteristic Curves of SR520~SR5200

FIG.1-FORWARD CURRENT DERATING CURVE

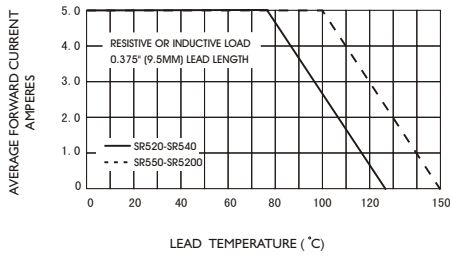


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

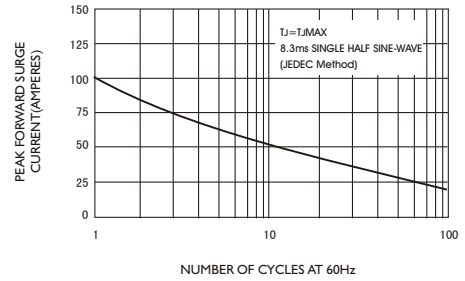


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

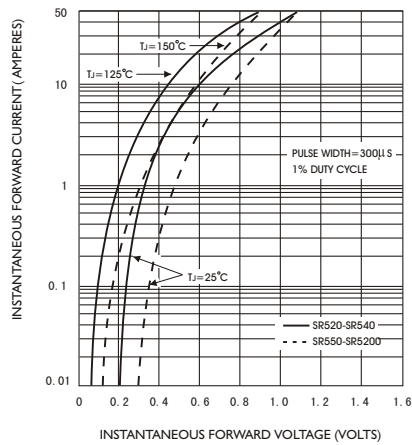


FIG.4-TYPICAL REVERSE CHARACTERISTICS

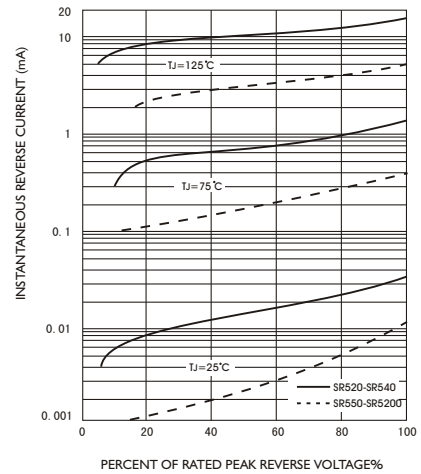


FIG.5-TYPICAL JUNCTION CAPACITANCE

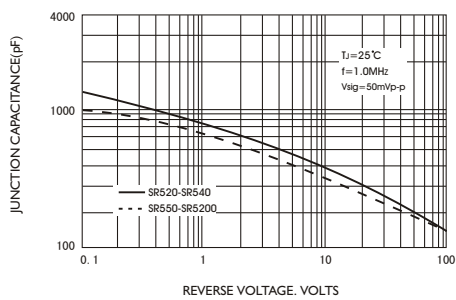


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

