

SR320 THRU SR3200

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 V

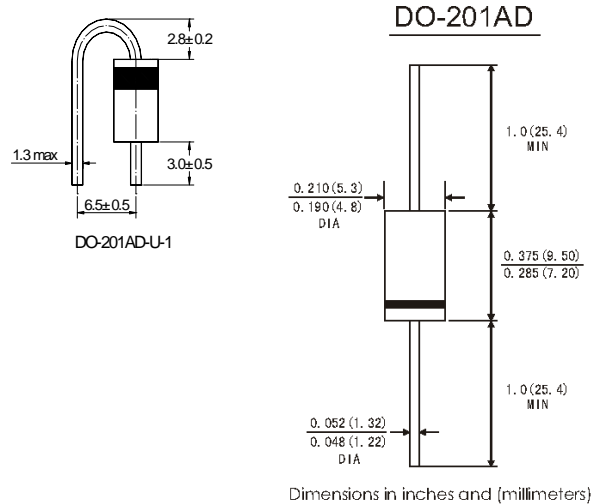
Forward Current - 3 A

Features

- Plastic package has UL flammability classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability

Mechanical Data

- Case: Molded plastic body, DO-201AD
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any



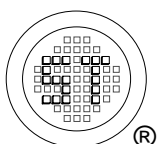
Absolute Maximum Ratings and Characteristics

Ratings 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%.

Parameter	Symbols	SR320	SR330	SR340	SR350	SR360	SR380	SR3100	SR3150	SR3200	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length	$I_{F(AV)}$	3									A
Peak Forward Surge Current, 8.3 ms Single Half-Sine-Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80									A
Maximum Forward Voltage at 3 A DC	V_F	0.55		0.7		0.85		0.9		0.95	V
Maximum Reverse Current at Rated DC Blocking Voltage	I_R	0.5									mA
		20		10							
Typical Junction Capacitance ¹⁾	C_J	250		160							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	40									°C/W
Operating Junction Temperature Range	T_j	- 55 to + 125			- 55 to + 150						°C
Storage Temperature Range	T_{sig}	- 55 to + 150									°C

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V DC.

²⁾ Thermal resistance from junction to lead vertical P.C.B mounted, 0.5" (12.7 mm) lead length.



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FIG.1-FORWARD CURRENT DERATING CURVE

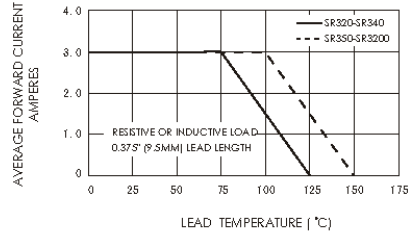


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

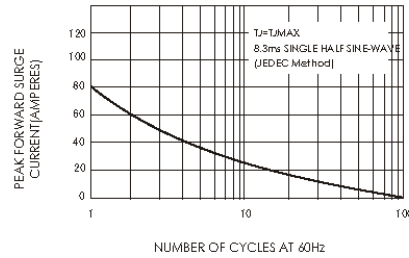


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

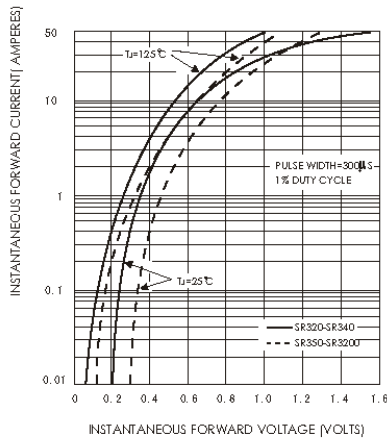


FIG.4-TYPICAL REVERSE CHARACTERISTICS

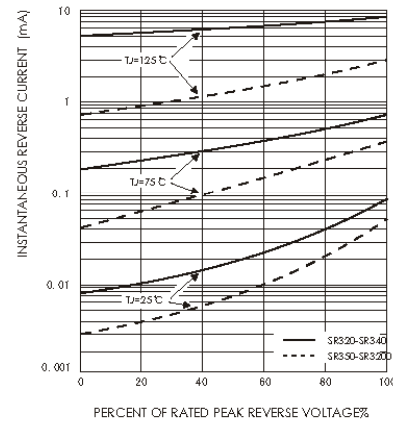


FIG.5-TYPICAL JUNCTION CAPACITANCE

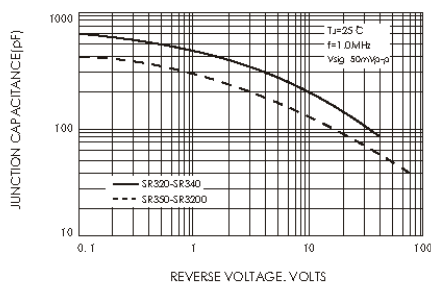
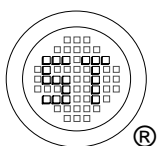
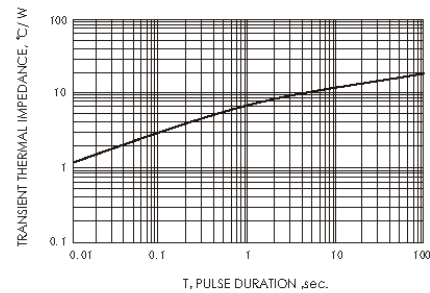


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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