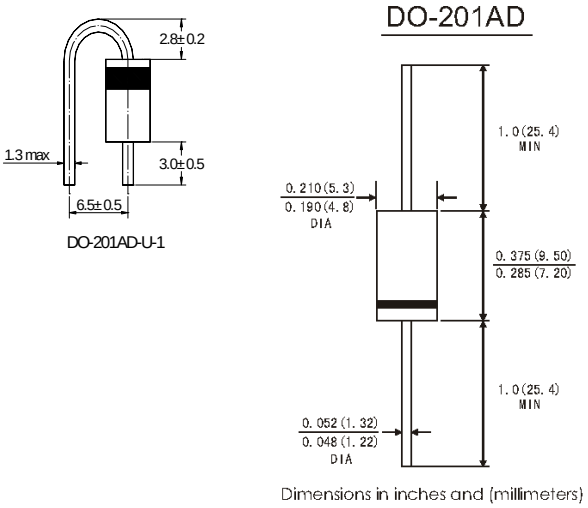
SR320 THRU SR3200

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	T_A = 25 °C	I_R	0.5									mA
	T_A = 100 °C		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_{stg}	- 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.

FIG.1-FORWARD CURRENT DERATING CURVE

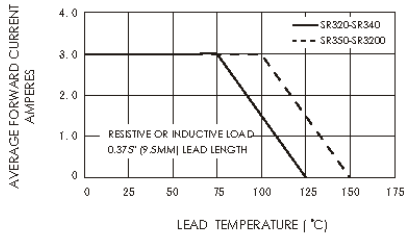


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

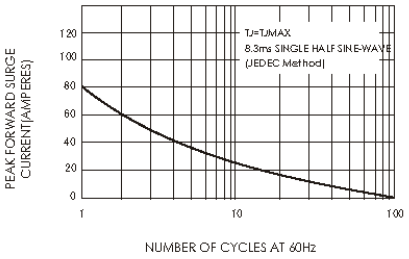


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

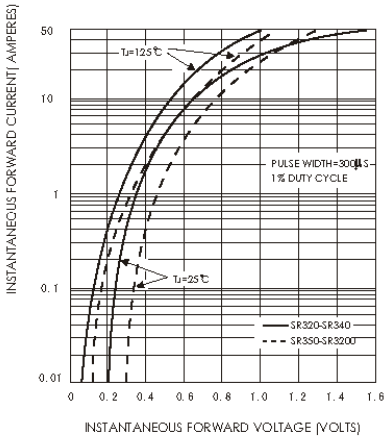


FIG.4-TYPICAL REVERSE CHARACTERISTICS

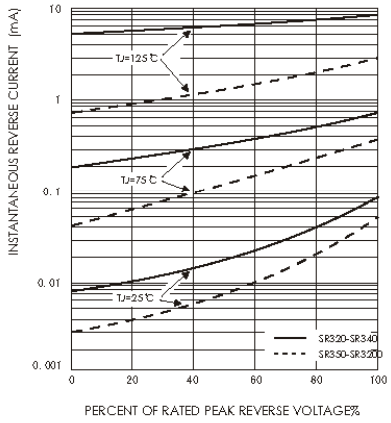


FIG.5-TYPICAL JUNCTION CAPACITANCE

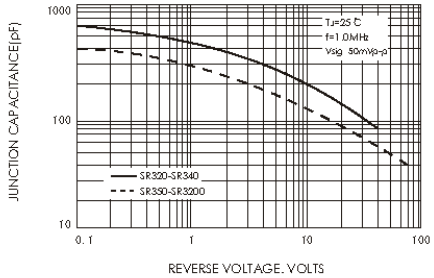


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE