

SR202 THRU SR20A

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 100 V

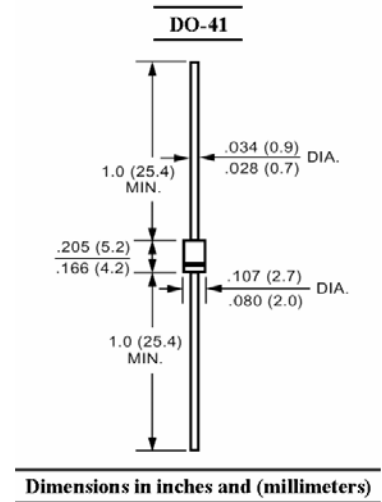
Forward Current - 2 A

Features

- Plastic package has Underwriters Laboratory 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
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications

Mechanical Data

- **Case:** Molded plastic body, DO-41.
- **Terminals:** Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any



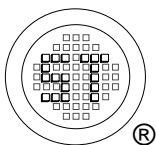
Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	SR202	SR203	SR204	SR205	SR206	SR208	SR20A	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	57	71	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_L = 75^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage at 2 A	V_F	0.55		0.7		0.85		V	
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated Reverse Voltage $T_A = 100^\circ\text{C}$	I_R	1				10			mA
Typical Junction Capacitance ¹⁾	C_{tot}	170				pF			
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	35				°C/W			
Operating Junction Temperature Range	T_j	- 65 to +125							°C
Storage Temperature Range	T_{stg}	- 65 to +150							°C

¹⁾ Measured at 1MHz and applied reverse voltage of 4 Volts

²⁾ Thermal Resistance from Junction to ambient P.C.B, mounted with 0.375" (9.5 mm) lead length With 1.5 X 1.5" (36 X 36 mm) copper pad.



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FIG.1-FORWARD DERATING CURVE

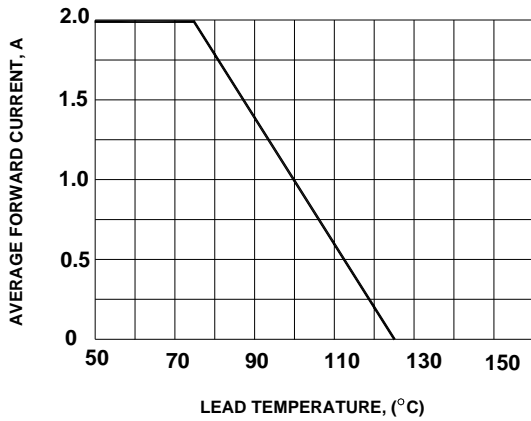


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

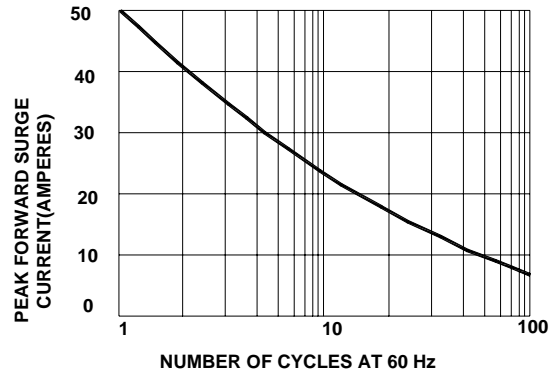


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

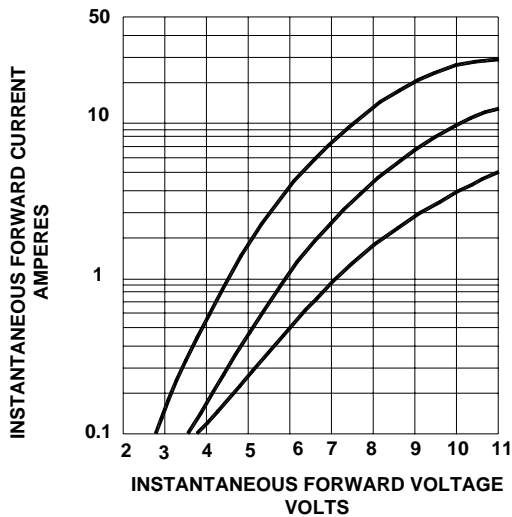


FIG.4-TYPICAL REVERSE CHARACTERISTICS

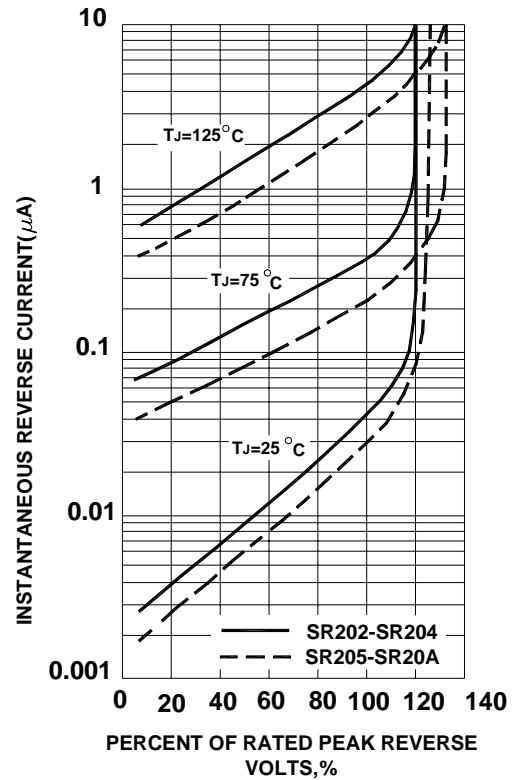
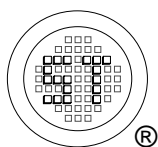
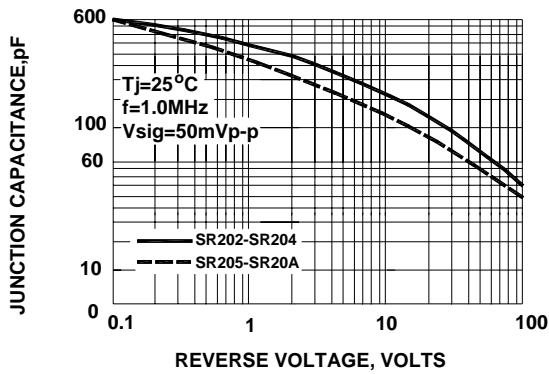


Fig.5- TYPICAL JUNCTION CAPACITANCE



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