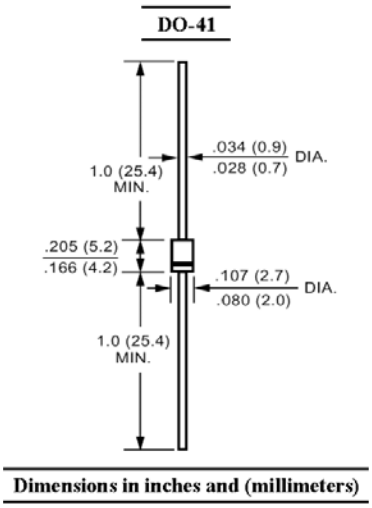
SR202 THRU SR20A

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 ℃ 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	56	70	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	$I_{F(AV)}$	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 [1]	V_F	0.55			0.7		0.85		V
Maximum Reverse Current T_A = 25 ℃	I_R	0.5					0.1		mA
at Rated Reverse Voltage T_A = 100 ℃		10			5		-		
Thermal Resistance, Junction to Case	$R_{\theta JC}$	14							℃/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	21.7							℃/W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75							℃/W
Operating Junction Temperature Range	T_j	- 55 to +125			- 55 to +150				℃
Storage Temperature Range	T_{stg}	- 55 to +150							℃

[1] Pulse test: tp=300μS, 1% duty cycle

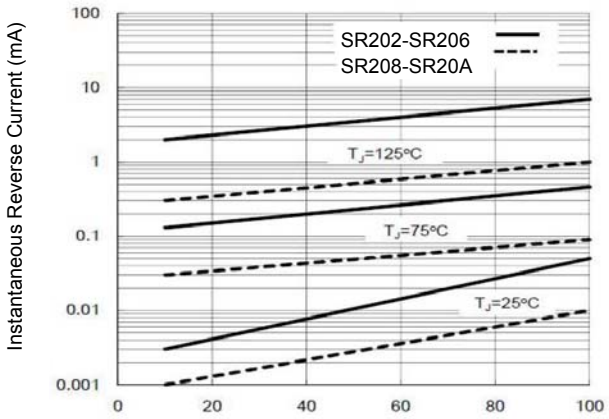


Figure 1. Typical Reverse Characteristics

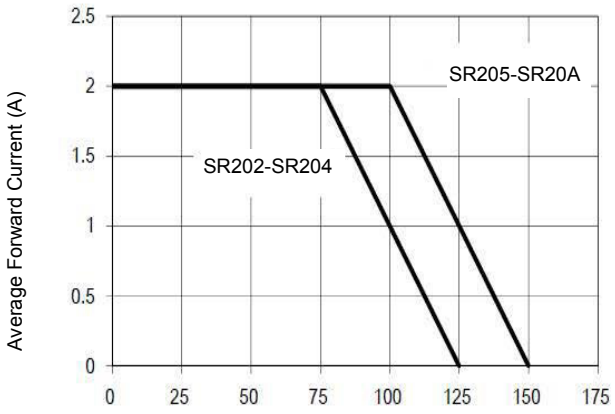


Figure 2. Forward Current Derating Curve

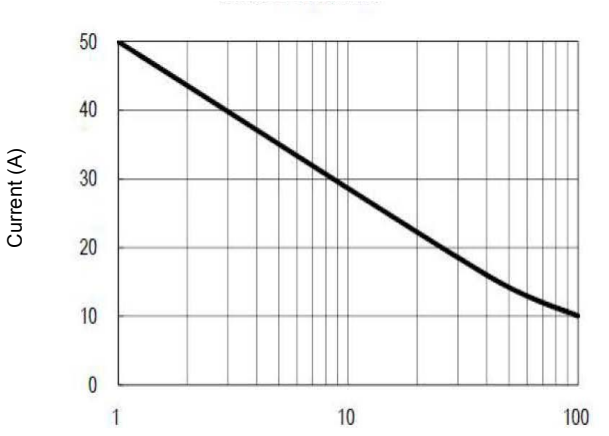


Figure 3. Maximum Non-Repetitive Forward Surge Current

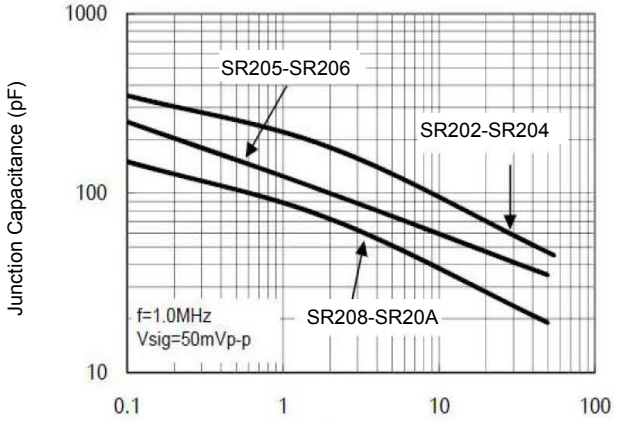


Figure 4. Typical Junction Capacitance

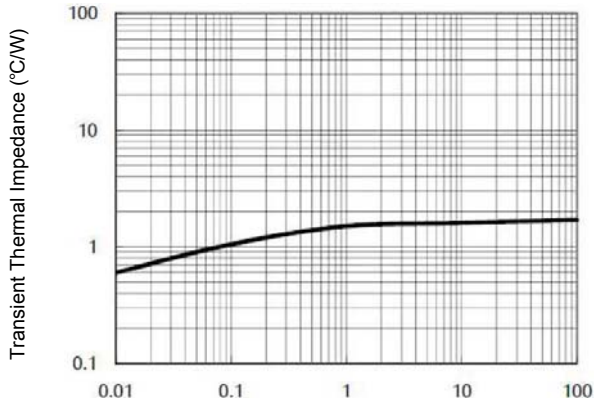


Figure 5. Typical Transient Thermal Characteristics

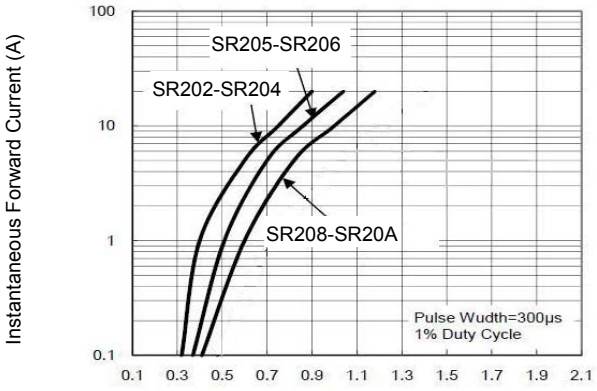


Figure 6. Typical Forward Characteristics