

SR1090 THRU SR10100

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 90 to 100 V

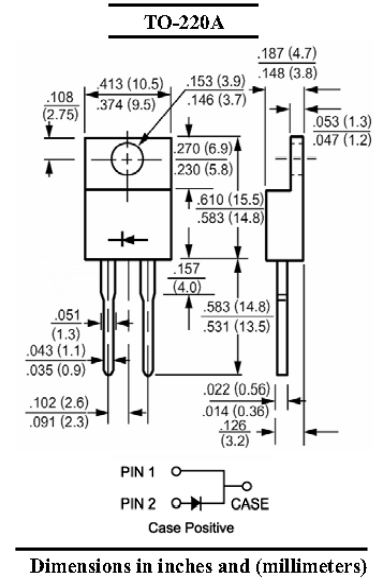
Forward Current - 10 A

Features

- Plastic package has Underwriters Laboratory flammability classifications 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

- Case: Molded plastic, TO-220A
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: As marked
- Mounting position: Any



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	SR1090	SR10100	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	90	100	V
Maximum RMS Voltage	V_{RMS}	63	70	V
Maximum DC Blocking Voltage	V_{DC}	90	100	V
Maximum Average Forward Rectified Current at $T_C = 133\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	10		A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150		A
Maximum Forward Voltage ¹⁾ at 10 A and $T_C = 25\text{ }^{\circ}\text{C}$ at 20 A and $T_C = 25\text{ }^{\circ}\text{C}$	V_F	0.8 0.95		V
Maximum Reverse Current Rated DC Blocking Voltage at $T_J = 25\text{ }^{\circ}\text{C}$ at $T_J = 125\text{ }^{\circ}\text{C}$	I_R	0.1 6		mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	60		$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	2		$^{\circ}\text{C/W}$
Operating Temperature Range	T_J	- 55 to + 150		$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 175		$^{\circ}\text{C}$

¹⁾ Pulse test: 300 μs pulse width, 1% duty cycle

