SR8100R

SCHOTTKY BARRIER RECTIFIER

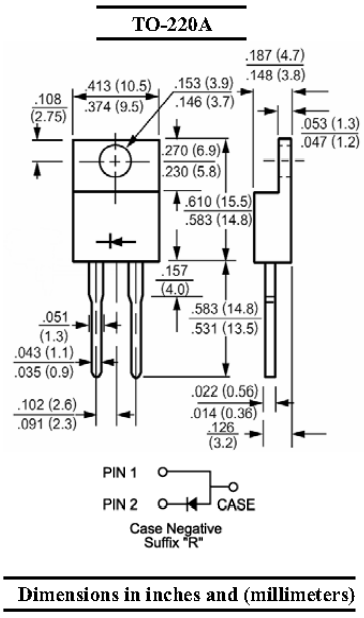
Reverse Voltage - 100 V
Forward Current - 8 A

Features

- Schottky barrier chip
- Guard ring die construction for transient protection
- High surge capability
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- 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	SR8100R	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current at T_C = 25 °C	$I_{F(AV)}$	8	A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150	A
Maximum Forward Voltage at 8 A and T_C = 25 °C	V_F	0.72	V
Maximum Reverse Current Rated DC Blocking Voltage at T_C = 25 °C at T_C = 125 °C	I_R	0.55 7	mA
Typical Junction Capacitance [1]	C_J	350	pF
Typical Thermal Resistance Junction to Case [2]	$R_{\theta JC}$	2	K/W
Operating Temperature Range	T_J	- 55 to + 150	°C
Storage Temperature Range	T_{stg}	- 55 to + 175	°C

[1] Measured at 1 MHz and applied reverse voltage of 4 V.
[2] Thermal Resistance from Junction to case mounted on heatsink.

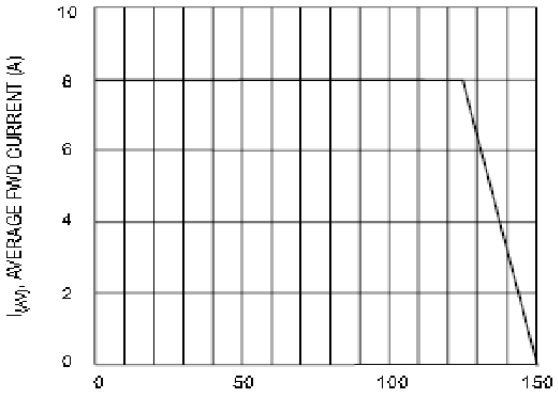


Fig. 1 Forward Current Derating Curve

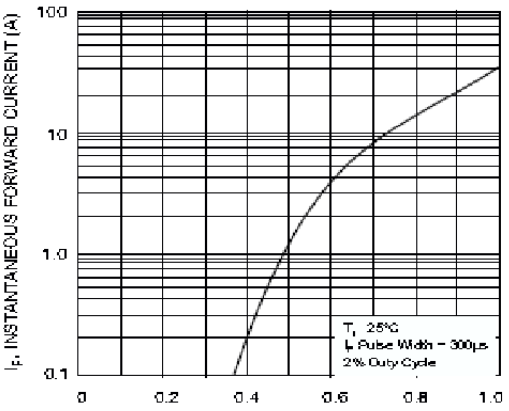


Fig. 2 Typical Forward Characteristics

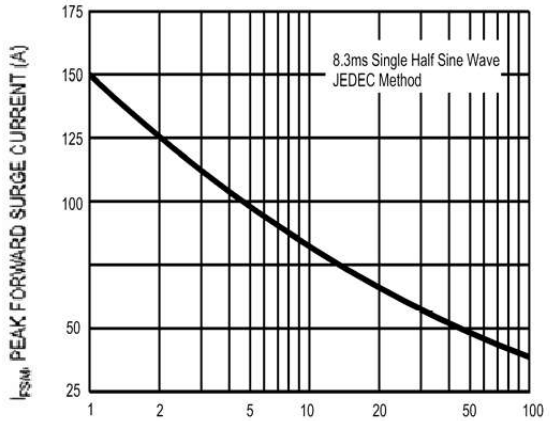


Fig. 3 Max Non-Repetitive Surge Current

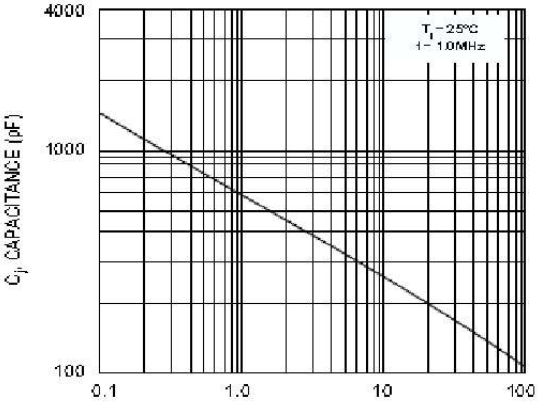


Fig. 4 Typical Junction Capacitance