

# SR8100

## SCHOTTKY BARRIER RECTIFIER

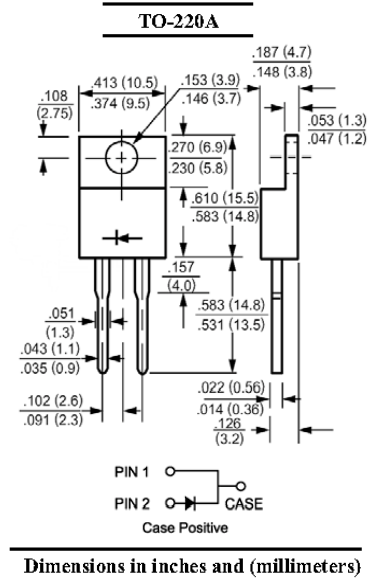
**Reverse Voltage - 100 V**  
**Forward Current - 8 A**

### 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



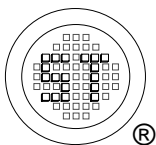
### Maximum Ratings and Characteristics

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	SR8100	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 $T_C = 25\text{ }^\circ\text{C}$	$I_{F(AV)}$	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 $T_C = 25\text{ }^\circ\text{C}$	$V_F$	0.72	V
Maximum Reverse Current Rated DC Blocking Voltage	$I_R$	0.55 7	mA
Typical Junction Capacitance <sup>1)</sup>	$C_J$	350	pF
Typical Thermal Resistance Junction to Case <sup>2)</sup>	$R_{\theta JC}$	2	K/W
Operating Temperature Range	$T_J$	- 55 to + 150	°C
Storage Temperature Range	$T_{stg}$	- 55 to + 175	°C

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V.

<sup>2)</sup> Thermal Resistance from Junction to case mounted on heatsink.



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ISO/TS 16949 : 2002  
Certificate No. 05103

ISO 14001:2004  
Certificate No. 7116

ISO 9001:2000  
Certificate No. 0506098

Dated : 27/07/2007 H

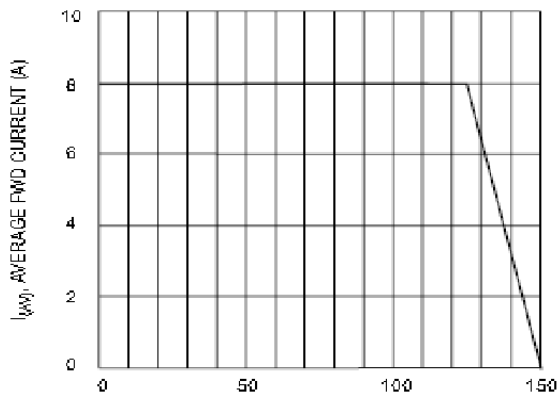


Fig. 1 Forward Current Derating Curve

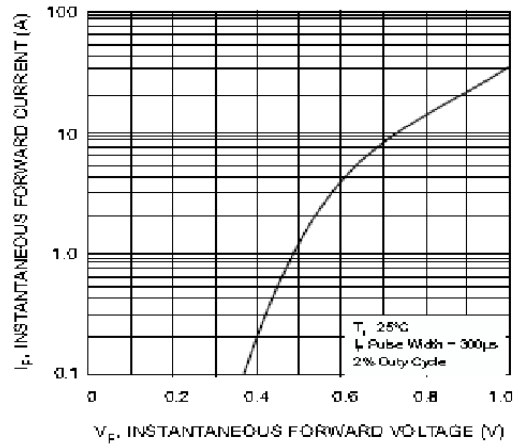


Fig. 2 Typical Forward Characteristics

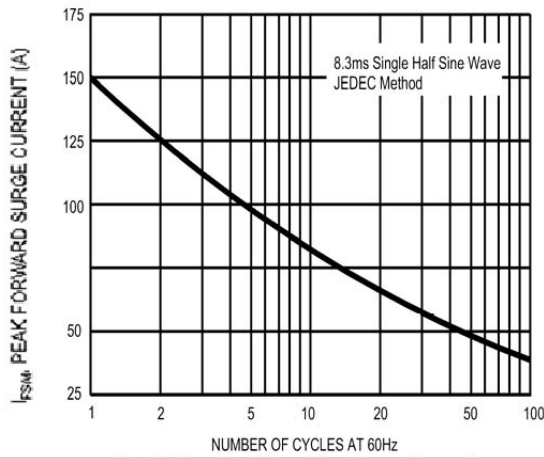


Fig. 3 Max Non-Repetitive Surge Current

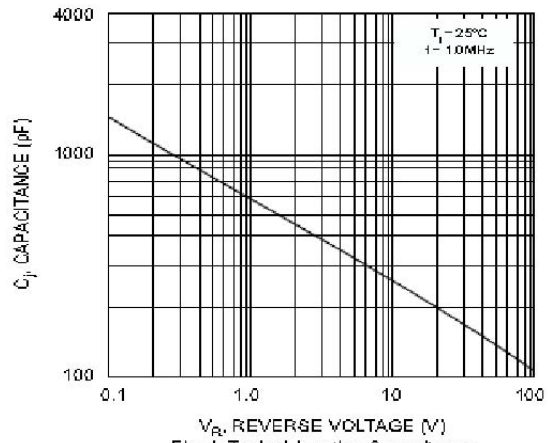
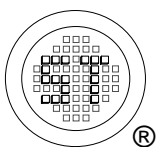


Fig. 4 Typical Junction Capacitance



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