

# SR1090 THRU SR10100

## SCHOTTKY BARRIER RECTIFIERS

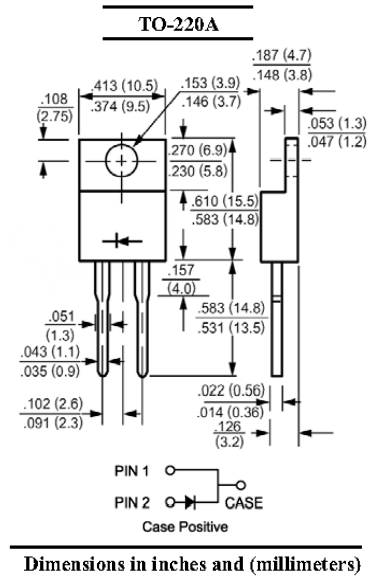
**Reverse Voltage - 90 to 100 V**  
**Forward Current - 10 A**

### 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

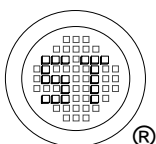


### Maximum Ratings and Characteristics

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 <sup>1)</sup> 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		$^\circ\text{C}$

<sup>1)</sup> Pulse test: 300  $\mu\text{s}$  pulse width, 1% duty cycle



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

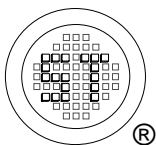
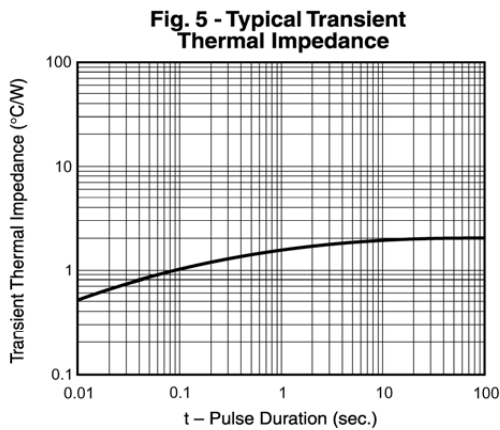
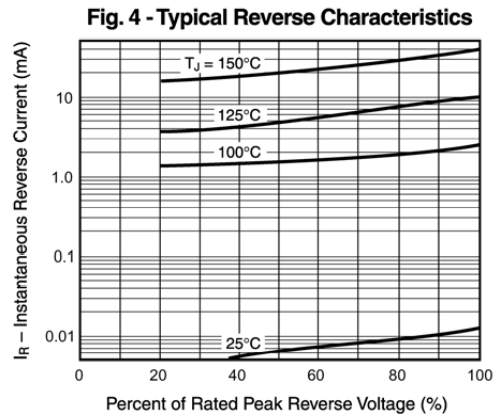
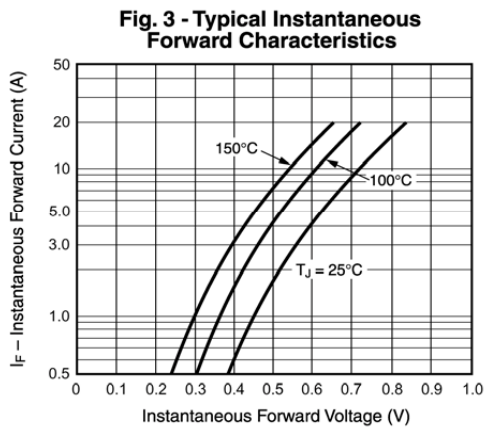
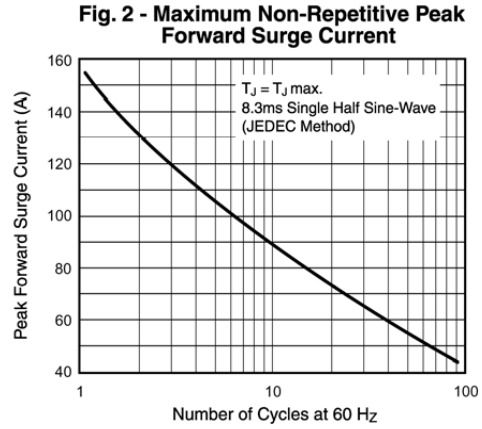
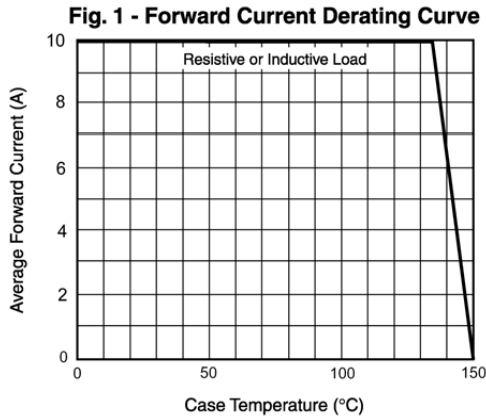


ISO/TS 16949 : 2002  
Certificate No. 05103

ISO 14001:2004  
Certificate No. 7116

ISO 9001:2000  
Certificate No. 0506098

Dated : 27/07/2007 H



**SEMTECH ELECTRONICS LTD.**  
 (Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

