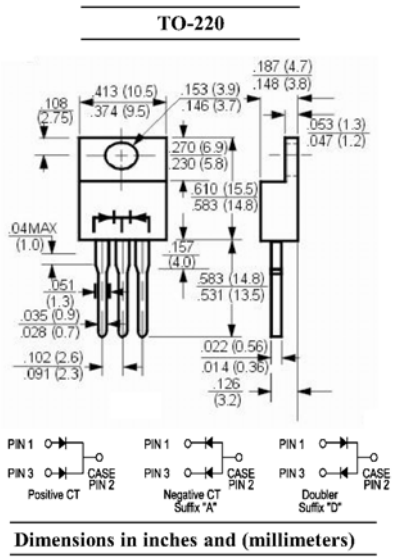
SR1020CT THRU SR1060CT

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 60 V
Forward Current - 10 A

Features

- Plastic package has UL flammability classification 94V-0
- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- High capability
- Low power loss, high efficiency
- High current capability, low forward voltage
- High surge capacity
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications



Mechanical Data

- **Case:** Molded plastic body, TO-220
- **Terminals:** Axial leads, solderable per MIL-STD-202 method 208 guaranteed
- **Polarity:** As marked
- **Mounting Position:** Any

Absolute Maximum Ratings and Characteristics

Ratings at 25°C unless otherwise specified. Single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%.

Parameter	Symbols	SR1020CT	SR1030CT	SR1040CT	SR1050CT	SR1060CT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10					A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	175					A
Maximum Instantaneous Forward Voltage at 5 A	V_F	0.55			0.7		V
Maximum Reverse Current T_C = 25°C at Rated Reverse Voltage T_C = 100 °C	I_R	0.5 50					mA
Typical Junction Capacitance [1]	C_{tot}	400					pF
Typical Thermal Resistance [2]	$R_{\theta JC}$	3					°C/W
Operating Junction Temperature Range	T_j	- 55 to + 125			- 55 to + 150		°C
Storage Temperature Range	T_{stg}	- 55 to + 150					°C

[1] Measured at 1 MHz and applied reverse voltage of 4 Volts.

[2] Thermal Resistance from Junction to case per leg.

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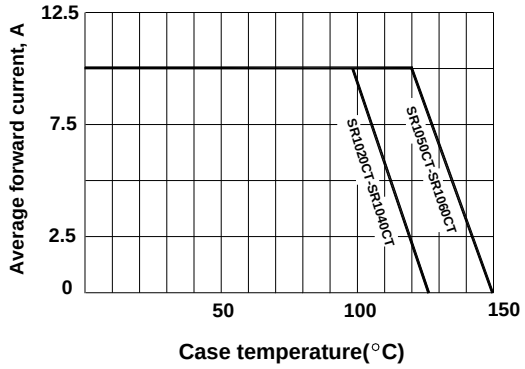
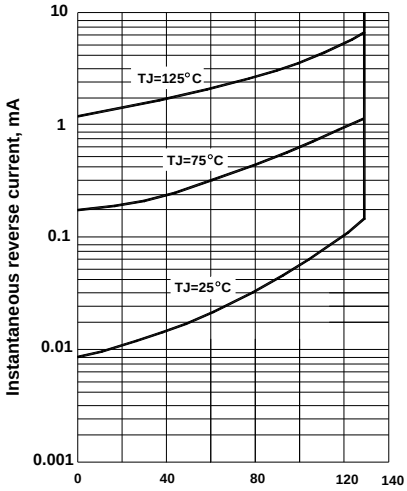
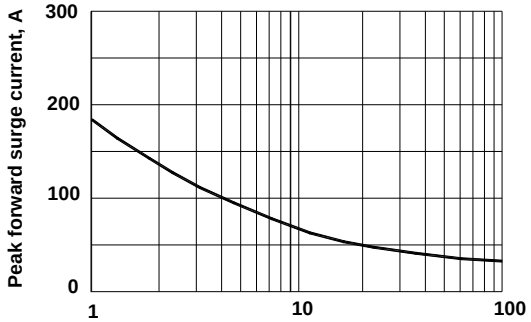
Forward current derating curve



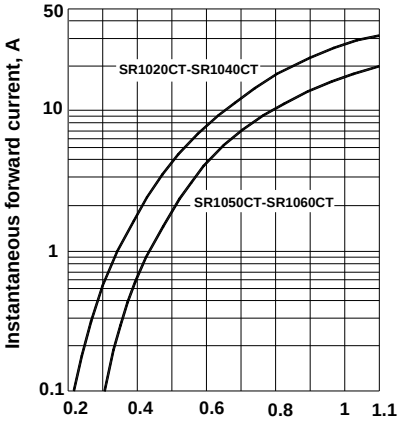
Typical reverse characteristics per leg



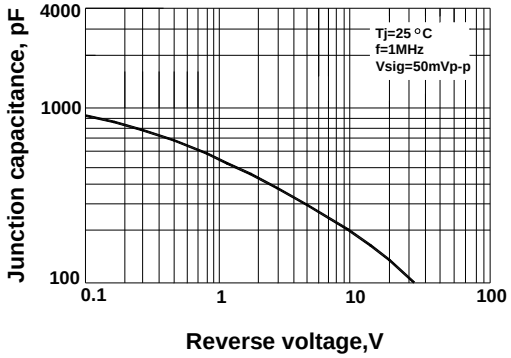
Maximum non-repeitive peak forward surge current



Typical forward characteristics per leg



Typical junction capacitance per leg



Dated : 13/08/2009 H