

SR1020CT THRU SR1060CT

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage – 20 to 60 Volts

Forward Current – 10 Amperes

Features

- Plastic package has Underwriters Laboratory 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
- **Polarity:** As marked
- **Mounting Position:** Any

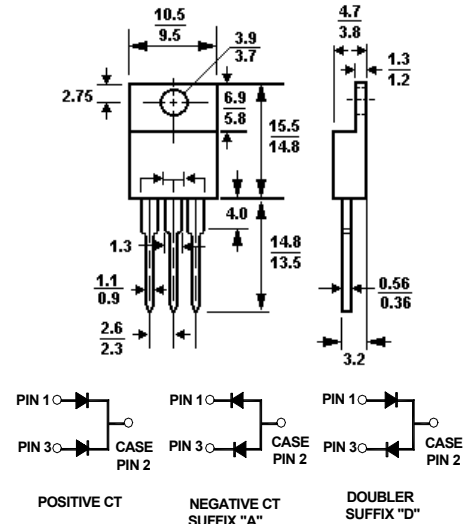
Absolute Maximum Ratings and Characteristics

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

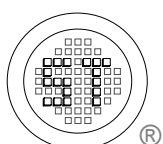
	Symbols	SR1020CT	SR1030CT	SR1040CT	SR1050CT	SR1060CT	Units
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	V
Maximum average forward rectified current	$I_{(AV)}$	10					A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	175					A
Maximum instantaneous forward voltage at 5.0 A	V_F	0.55		0.70			V
Maximum reverse current at rated reverse voltage	I_R			0.5 50			mA
Typical junction capacitance (Note 1)	C_{tot}	400					pF
Typical thermal resistance (Note 2)	$R_{\theta JC}$	3.0					°C/W
Operating junction temperature range	T_J	-55 to +125		-55 to +150			°C
storage temperature range	T_S	-55 to +150					°C

- Notes: (1) Measured at 1MHz and applied reverse voltage of 4 Volts
 (2) Thermal Resistance from Junction to case per leg

TO-220

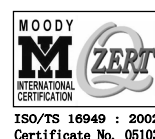


Dimensions in mm



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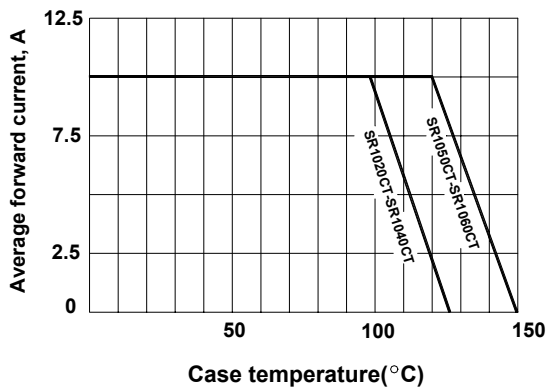
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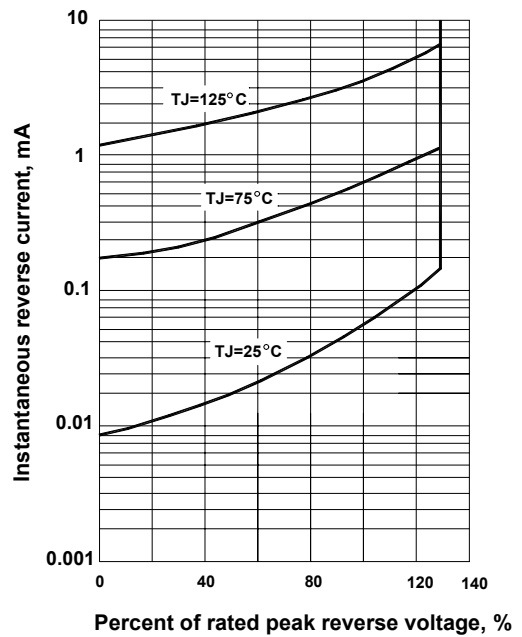
Dated : 10/07/2003

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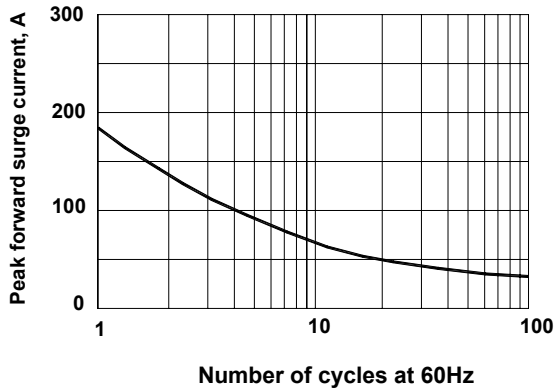
Forward current derating curve



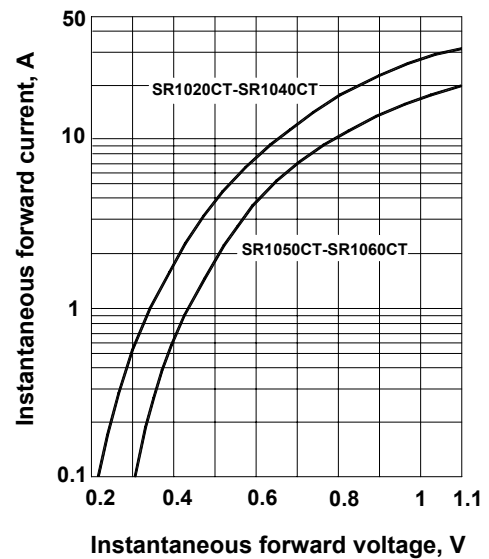
Typical reverse characteristics per leg



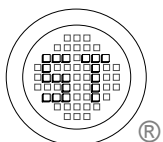
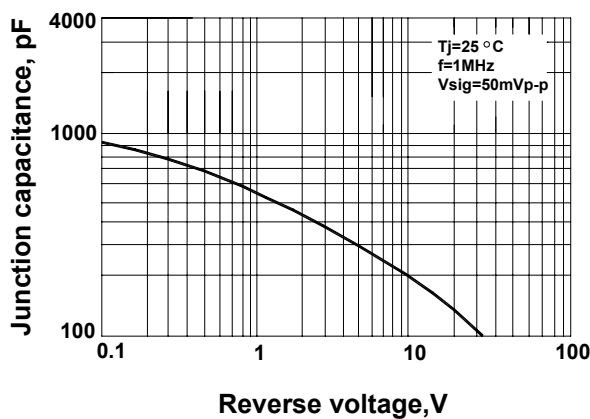
Maximum non-repetitive peak forward surge current



Typical forward characteristics per leg



Typical junction capacitance per leg



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