

SRS1020CT THRU SRS1060CT

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE: 20 to 60 VOLTS

FORWARD CURRENT: 10.0 AMPERE

FEATURES

- For surface mounted application
- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- High capability
- Low power loss, high efficiency
- High current capability, low V_F
- High surge capacity
- For use in low voltage, high frequency inverters, free whelling, and polarity protection applications

MECHANICAL DATA

Case: Molded plastic, D²PAK

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202

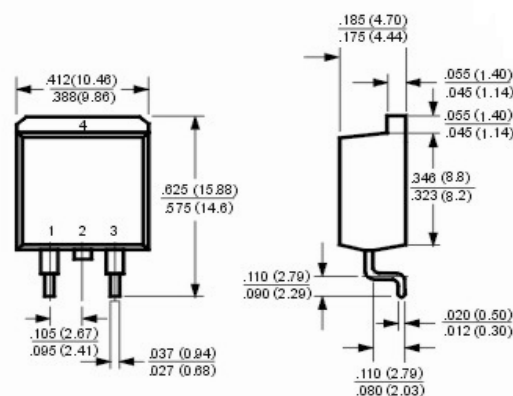
method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.06ounce, 1.70gram

D²PAK



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	SRS1020CT	SRS1030CT	SRS1040CT	SRS1050CT	SRS1060CT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	10.0					Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	175					Amp
Maximum Forward Voltage at 5.0A DC and 25°C	V_F	0.55			0.70		Volts
Maximum Reverse Current at Rated DC Blocking Voltage at $T_C=25^\circ\text{C}$ $T_C=100^\circ\text{C}$	I_R	0.5			50		mAmp
Typical Junction Capacitance (Note 1)	C_J	400					pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	3					°C/W
Operating Temperature Range	T_J	-55 to +125			-55 to +150		°C
Storage Temperature Range	T_{stg}	-55 to +150					°C

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance from Junction to Case Per Leg

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- FORWARD CURRENT DERATING CURVE

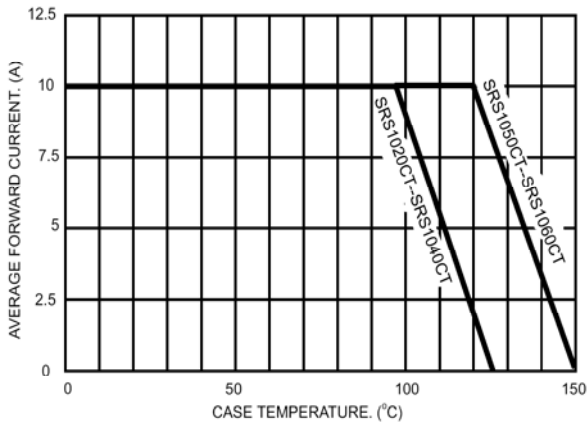


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

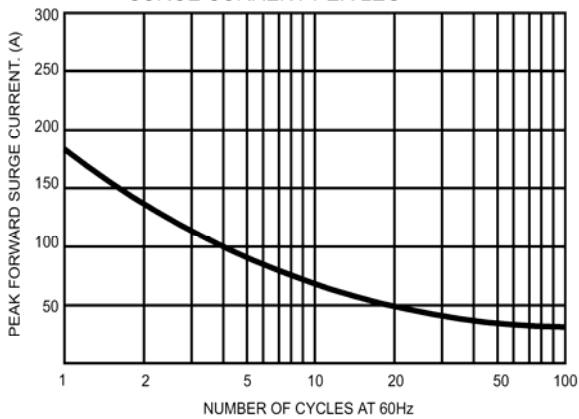


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

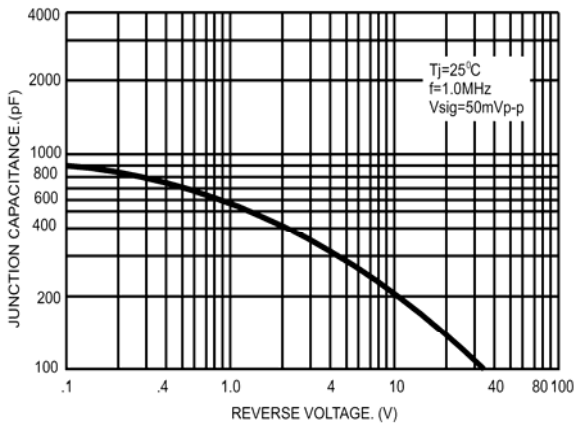


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

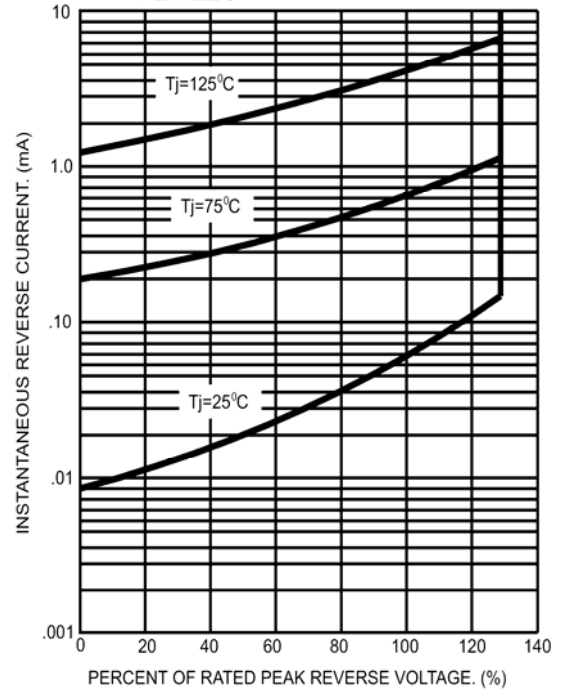


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER LEG

