

***SR20X0CT SERIES***

***SCHOTTKY BARRIER RECTIFIER***

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# SR2020CT THRU SR20200CT

## SCHOTTKY BARRIER RECTIFIER



康比電子  
HORNBY ELECTRONIC

**REVERSE VOLTAGE:** 20 to 200 VOLTS

**FORWARD CURRENT:** 20.0 AMPERE

### 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  $V_F$
- High surge capacity
- For use in low voltage, high frequency inverters, free whelling, and polarity protection applications

### MECHANICAL DATA

Case: Molded plastic, TO-220

Epoxy: UL 94V-0 rate flame retardant

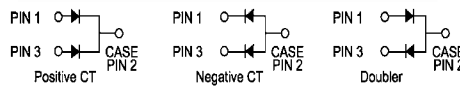
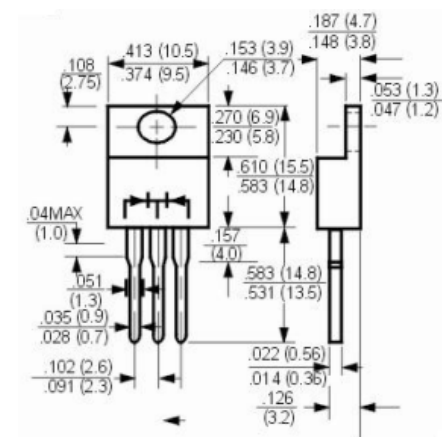
Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.08ounce, 2.24gram

### TO-220



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	SR2020CT	SR2030CT	SR2040CT	SR2050CT	SR2060CT	SR2080CT	SR20100CT	SR20150CT	SR20200CT	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	80	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	20.0									Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200									Amp
Maximum Forward Voltage at 10.0A DC and 25°C	$V_F$	0.55			0.70		0.85		0.95		Volts
Maximum Reverse Current at Rated DC Blocking Voltage	$I_R$	1.0							0.2		mAmp
Typical Junction Capacitance (Note 1)	$C_J$	700			500						pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2									°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

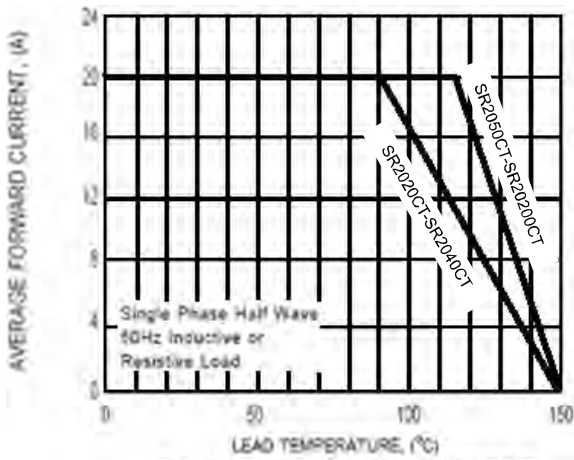


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

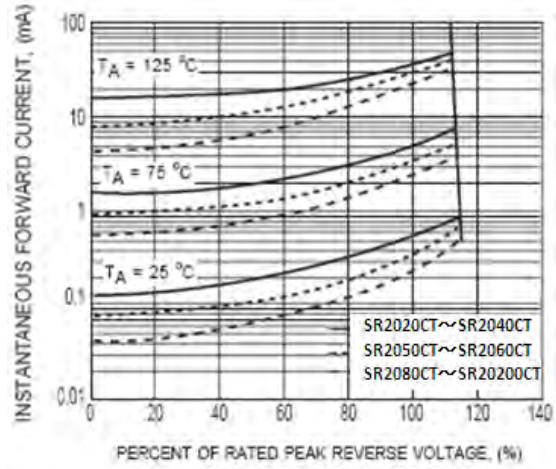


FIG.2 TYPICAL REVERSE CHARACTERISTICS

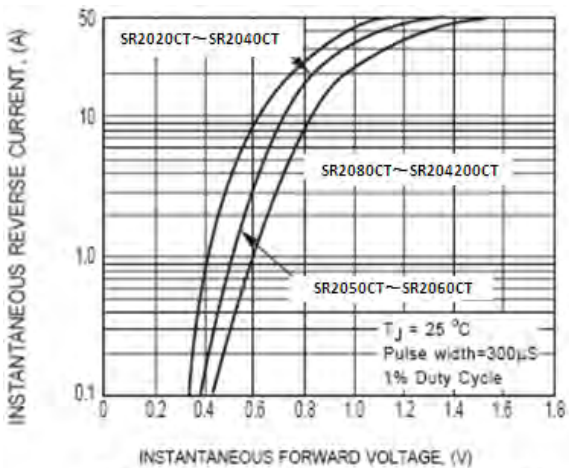


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

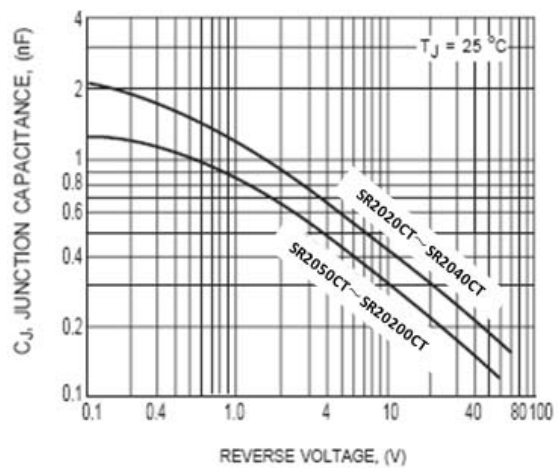


FIG.4 TYPICAL JUNCTION CAPACITANCE

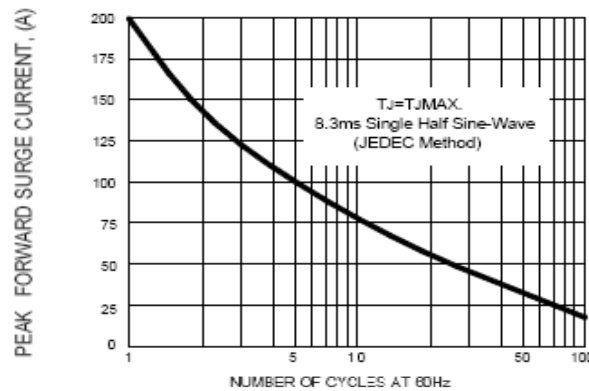


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT