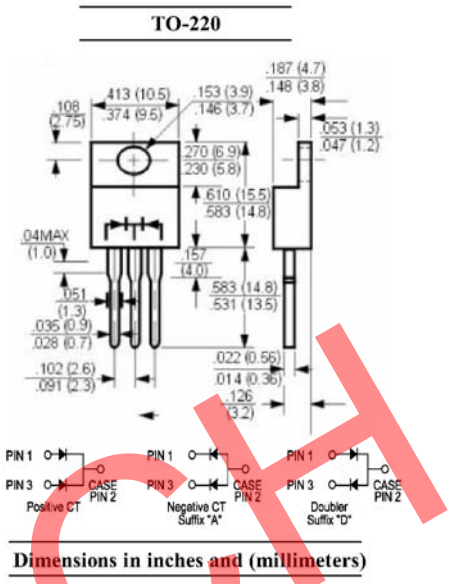
SR2020CT THRU SR20200CT

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 V
Forward Current - 20 A

Features

- Plastic package has UL Flammability Classification 94V-0
- Metal of silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- Guard ring for transient protection



Mechanical Data

- **Case:** Molded plastic, TO-220
- **Terminals:** leads solderable per MIL-STD-202, Method 208 guaranteed
- **Polarity:** As marked
- **Mounting position:** Any

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load, for capacitive load, derate by 20%.

Parameter	Symbols	SR2020CT	SR2030CT	SR2040CT	SR2050CT	SR2060CT	SR2080CT	SR20100CT	SR20150CT	SR20200CT	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	80	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	20									A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200									A
Maximum Forward Voltage at 10 A	V_F	0.55			0.7		0.85		0.95		V
Maximum Reverse Current at Rated DC Blocking Voltage T_C = 25 °C	I_R	1							0.2		mA
T_C = 100 °C		50									
Typical Junction Capacitance [1]	C_j	700			500						pF
Typical Thermal Resistance [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

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

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

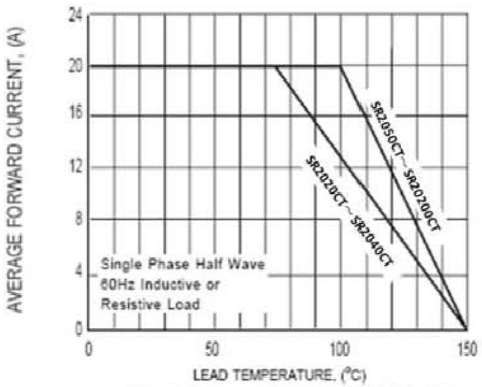


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

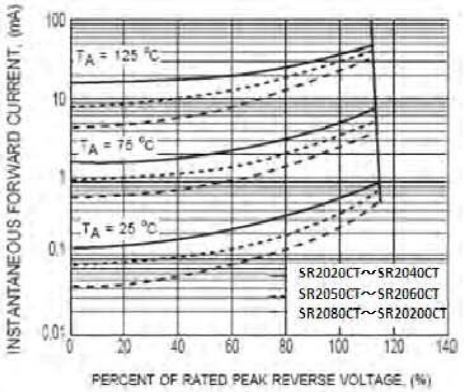


FIG.2 TYPICAL REVERSE CHARACTERISTICS

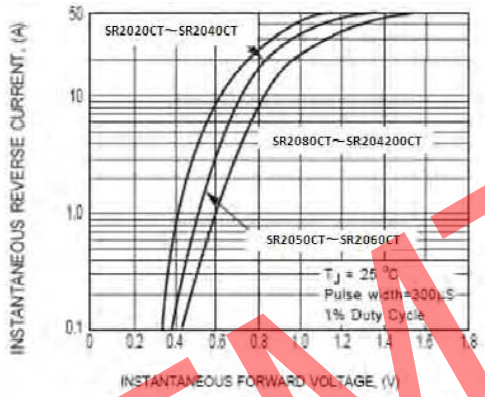


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

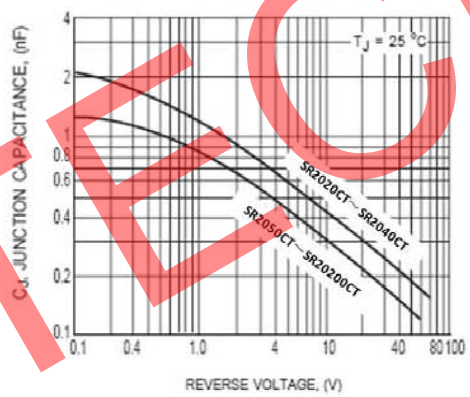


FIG.4 TYPICAL JUNCTION CAPACITANCE

FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT