

SR2020CT THRU SR20200CT

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 V

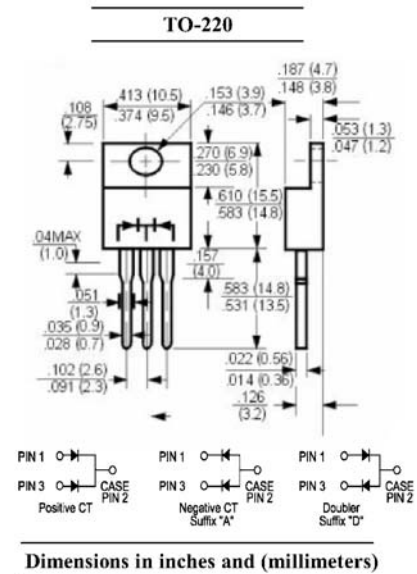
Forward Current - 20 A

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	I_R	$T_C = 25\text{ }^\circ\text{C}$							$T_C = 100\text{ }^\circ\text{C}$		mA
		1									
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.

SR2020CT THRU SR20200CT

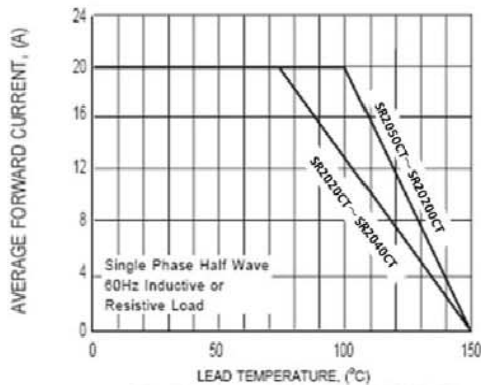


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

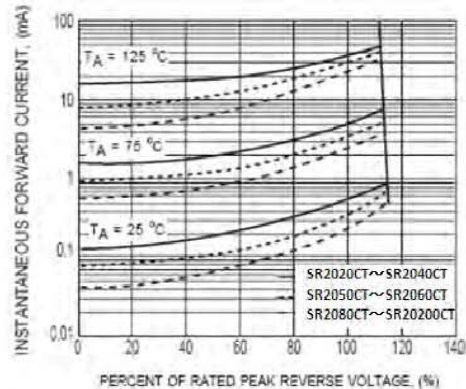


FIG.2 TYPICAL REVERSE CHARACTERISTICS

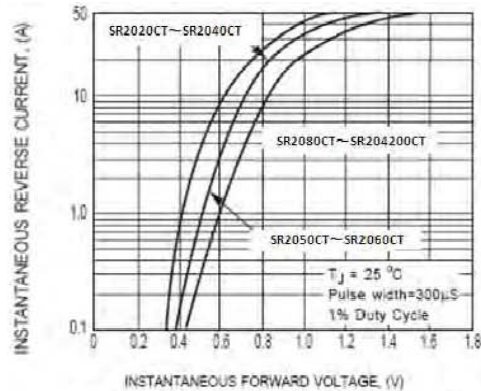


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

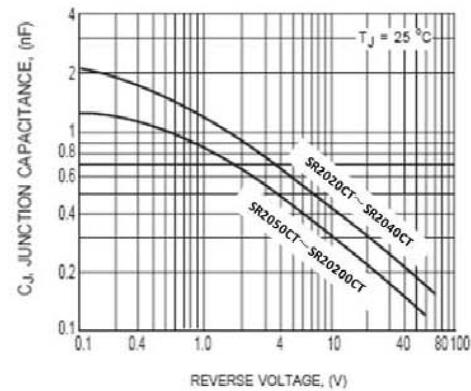


FIG.4 TYPICAL JUNCTION CAPACITANCE

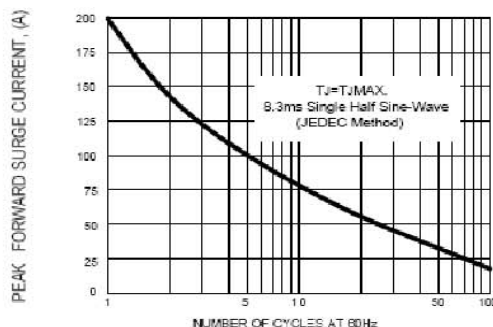


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT