

### FEATURES

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed:250°C/10 seconds, 0.25"(6.35mm)from case

### Mechanical Data

- Case: JEDEC TO-220AB molded plastic body
- Terminals: Lead solder able per MIL-STD-750,method 2026
- Polarity: As marked. No suffix indicates Common Cathode, suffix "A" indicates Common Anode
- Mounting Position: Any
- Weight: 0.08ounce,2.24 grams

### Maximum Ratings and Electrical Characteristics

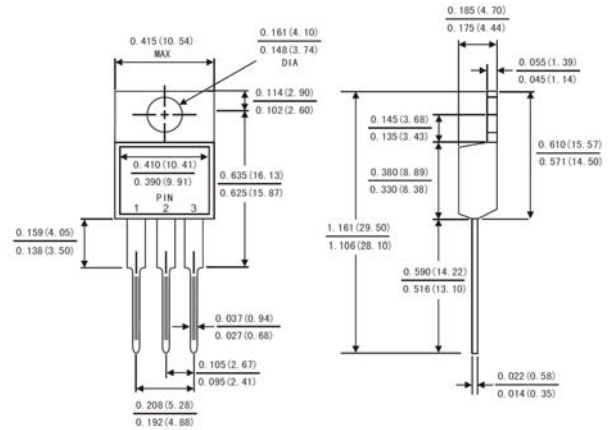
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	SR 3020CT	SR 3040CT	SR 3045CT	SR 3060CT	SR 3080CT	SR 30100CT	SR 30150CT	SR 30200CT	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	40	45	60	80	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	28	32	42	57	71	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	40	45	60	80	100	150	200	Volts
Maximum average forward rectified current see Fig.1	$I_{(AV)}$	30.0								Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on	$I_{FSM}$	275								Amp
Maximum instantaneous forward voltage at 15.0 A(Note 1 )	$V_F$	0.60		0.75	0.85		0.95		Volts	
Maximum Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$	$I_R$	0.5				50				mA
Typical Thermal Resistance (Note 2 )	$R_{\theta JC}$	3.0								°C/W
Operating Temperature Range	$T_J$	-50 to +150								°C
Storage Temperature Range	$T_{STG}$	-65 to +150								

#### NOTES:

1. Pulse test: 300μs pulse width, 1% duty cycle
2. Thermal resistance from junction to case

### TO-220AB



Dimensions in inches and (millimeters)

### RATINGS AND CHARACTERISTIC CURVES (SR3020 THRU SR30200)

FIG.1-FORWARD CURRENT DERATING CURVE

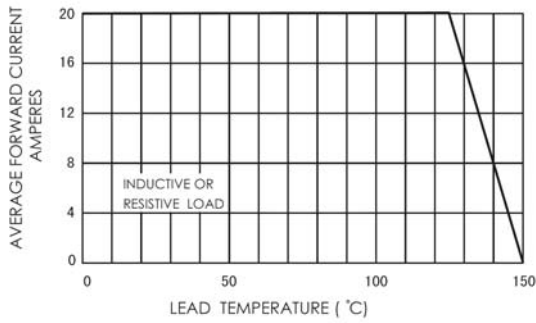


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

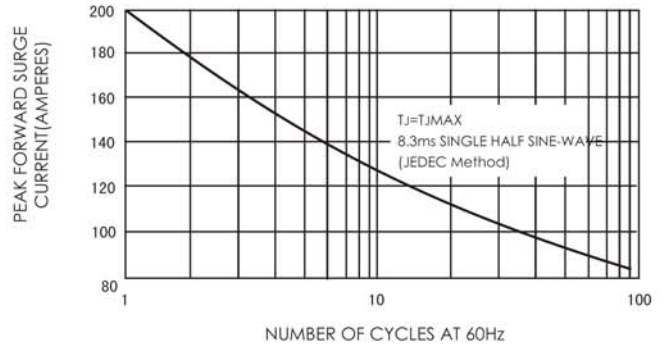


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

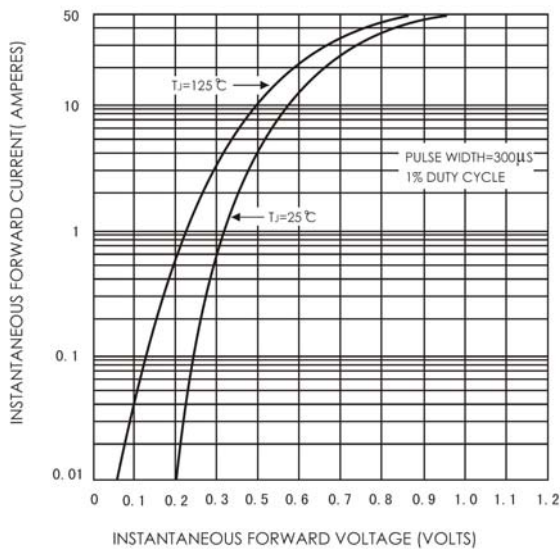


FIG.4-TYPICAL REVERSE CHARACTERISTICS

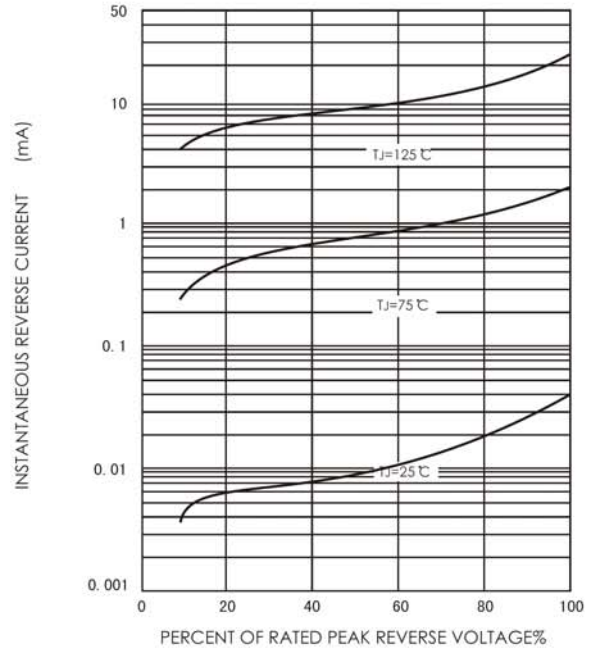


FIG.5-TYPICAL JUNCTION CAPACITANCE

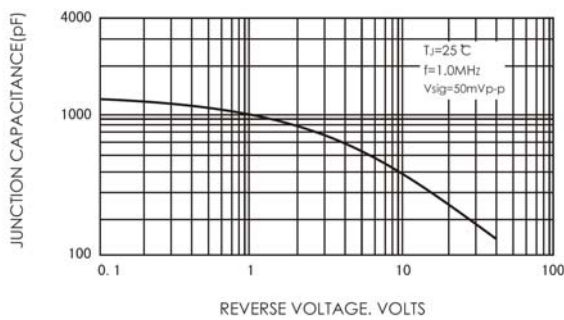


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

