

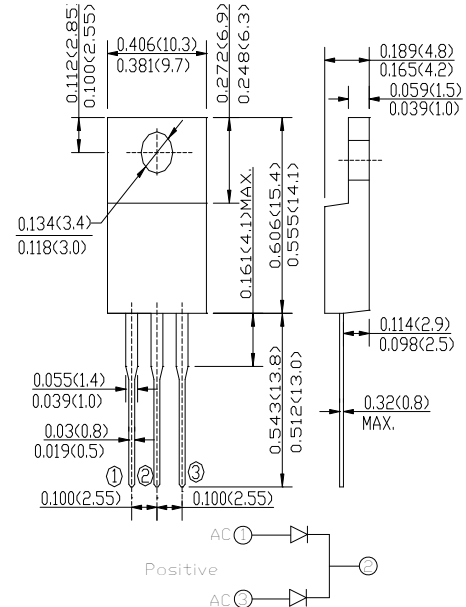
Features

- 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

TO-220AB



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	MBR 1020 CT	MBR 1030 CT	MBR 1040 CT	MBR 1045 CT	MBR 1060 CT	MBR 1080 CT	MBR 10100 CT	MBR 10150 CT	MBR 10200 CT	Units	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	60	80	100	150	200	Volts	
Maximum RMS Voltage	V_{RMS}	14	21	28	31.5	42	57	71	105	140	Volts	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	45	60	80	100	150	200	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}	150									Amp	
Maximum instantaneous forward voltage at 5.0 A(Note 1)	V_F	0.60			0.75		0.85		0.90		0.95	Volts
Maximum Reverse Current $T_A=25^\circ C$ at Rated DC Blocking Voltage $T_A=125^\circ C$	I_R	0.05									mA	
		30			50							
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	3.0									°C/W	
Operating Temperature Range	T_J	-65 to +150									°C	
Storage Temperature Range	T_{STG}	-65 to +150									°C	

NOTES:

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

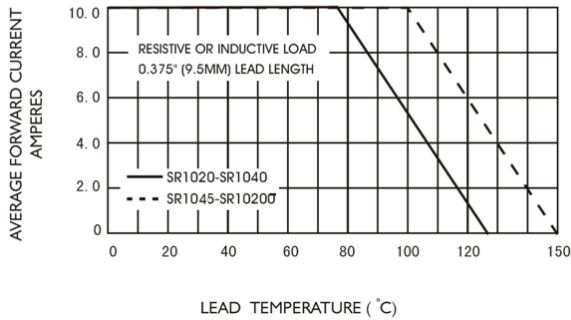


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

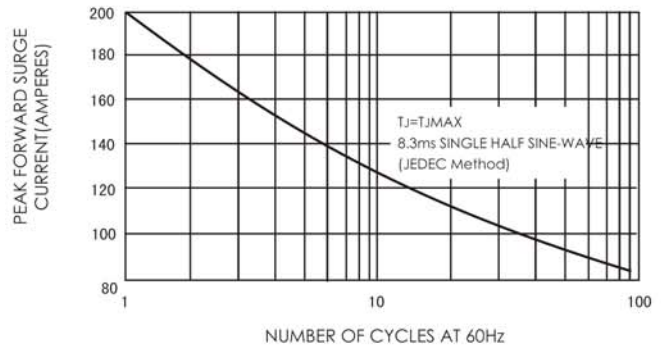


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

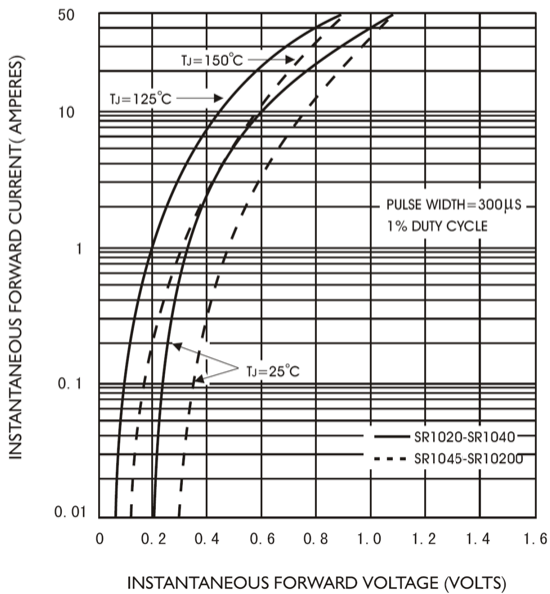


FIG.4-TYPICAL REVERSE CHARACTERISTICS

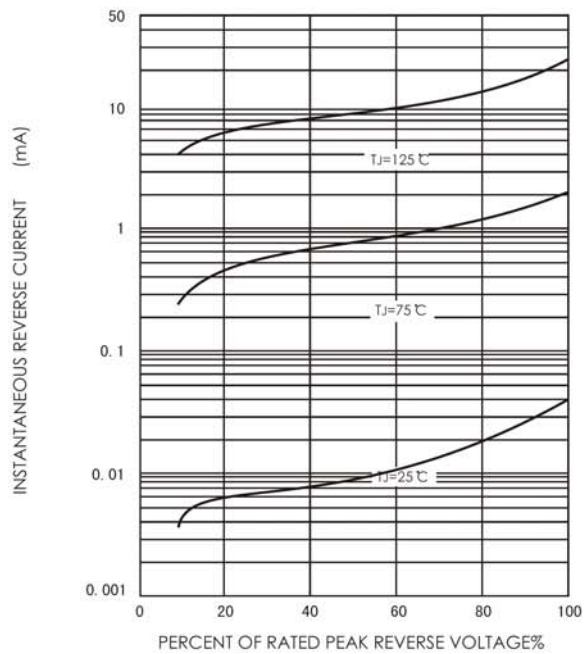


FIG.5-TYPICAL JUNCTION CAPACITANCE

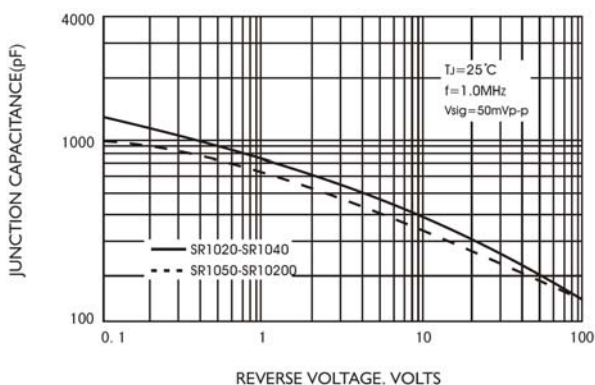


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

