

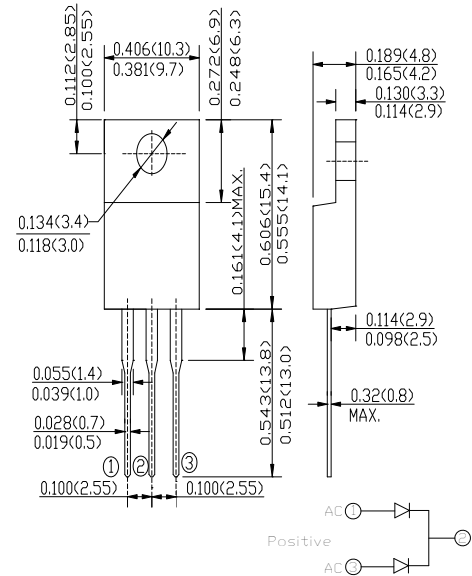
### Features

- 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 ITO-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

### ITO-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 2020 FCT	MBR 2030 FCT	MBR 2040 FCT	MBR 2045 FCT	MBR 2060 FCT	MBR 2080 FCT	MBR 20100 FCT	MBR 20150 FCT	MBR 20200 FCT	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	31.8	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	$I_{(AV)}$	20.0									Amp	
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200									Amp	
Maximum instantaneous forward voltage at 8.0 A(Note 1)	$V_F$	0.60			0.75		0.85		0.90		0.95	Volts
Maximum Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	$I_R$	0.5									mA	
		15			50							
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.5									°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  $\mu$ s pulse width, 1% duty cycle
2. Thermal resistance from junction to case

### RATINGS AND CHARACTERISTIC CURVES (MBR2020FCT THRU MBR20200FCT)

FIG.1-FORWARD CURRENT DERATING CURVE

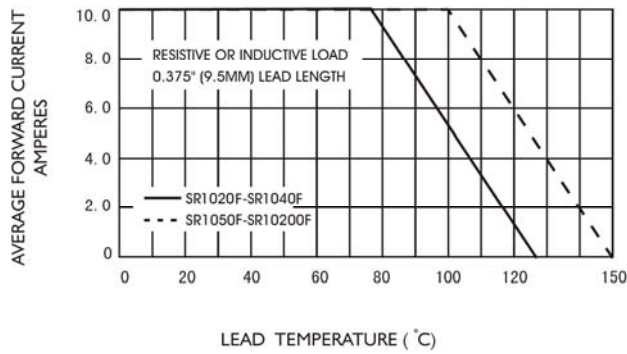


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

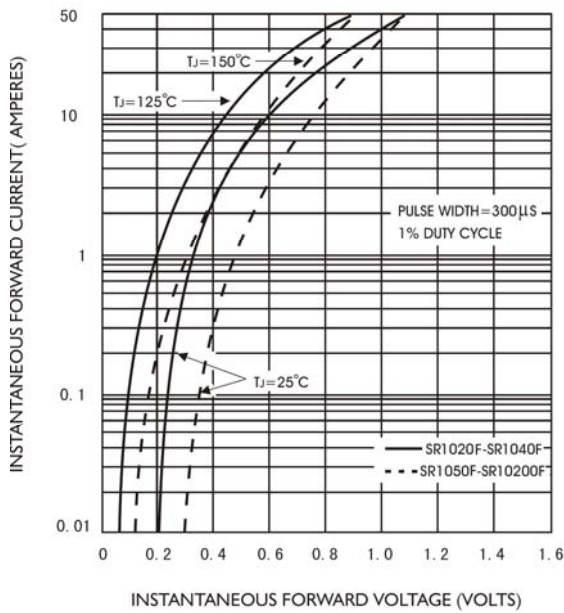


FIG.5-TYPICAL JUNCTION CAPACITANCE

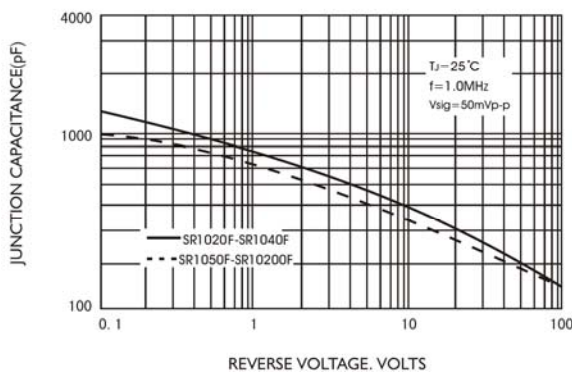


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

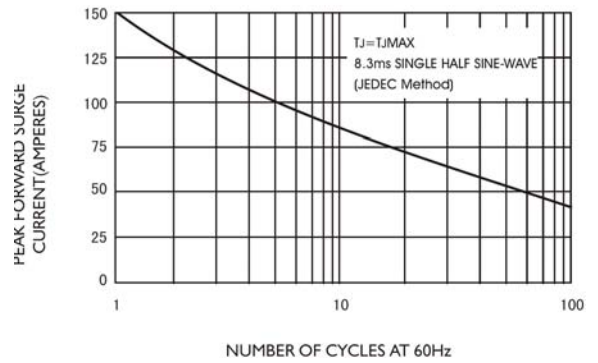


FIG.4-TYPICAL REVERSE CHARACTERISTICS

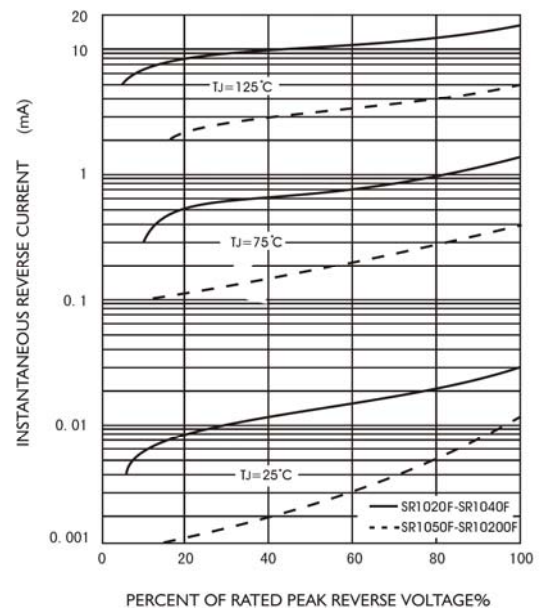


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

