



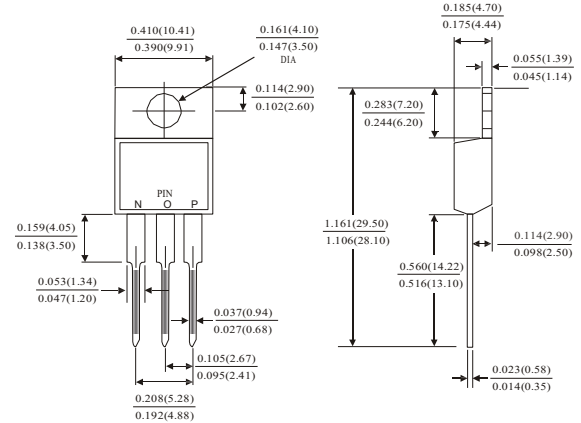
Reverse Voltage - 20 to 300 Volts  
Forward Current - 10.0Amperes

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- For use in low voltage ,high frequency inverters,
- free wheeling ,and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed:260 °C/10 seconds.,
- 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



### TO-220AB



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- *Case:* JEDEC TO-220AB molded plastic body
- *Terminals:* Lead solderable per MIL-STD-750,method 2026
- *Polarity:* As marked
- *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 ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	MBR 1020LCT	MBR 1045LCT	MBR 1050LCT	MBR 1060LCT	MBR 1080LCT	MBR 10100LCT	MBR 0150LCT	MBR 0200LCT	MBR 0300LCT	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	45	50	60	80	100	150	200	300	Volts	
Maximum RMS voltage	$V_{RMS}$	14	31	35	42	56	70	105	140	210	Volts	
Maximum DC blocking voltage	$V_{DC}$	20	45	50	60	80	100	150	200	300	Volts	
Maximum average forward rectified current(see Fig.1)	$I_{(AV)}$	Per leg		Total device		5.0					Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150.0										Amps
Maximum instantaneous forward voltage at 10.0 A(Note 1 )	$V_F$	0.45	0.55		0.75		0.80	0.85	0.85		Volts	
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$I_R$	0.2										mA
		15			50							
Typical thermal resistance (Note 2)	$R_{\theta JC}$	2.5										°C/W
Operating junction 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



FIG.1-FORWARD CURRENT DERATING CURVE

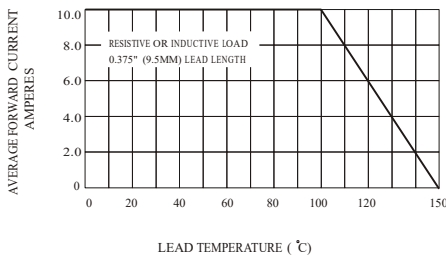


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

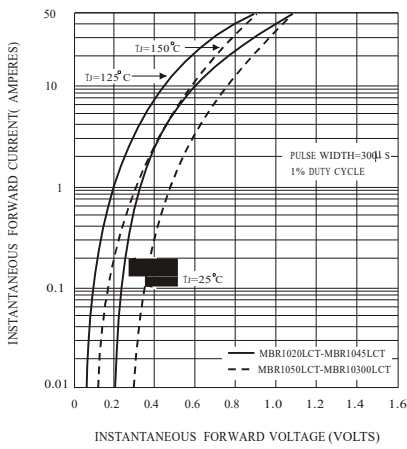


FIG.5-TYPICAL JUNCTION CAPACITANCE

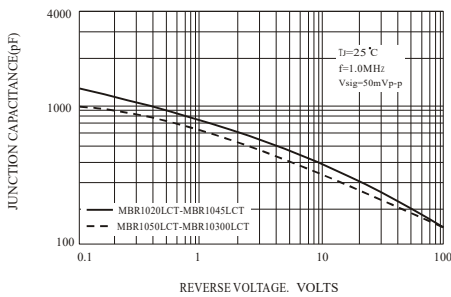


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

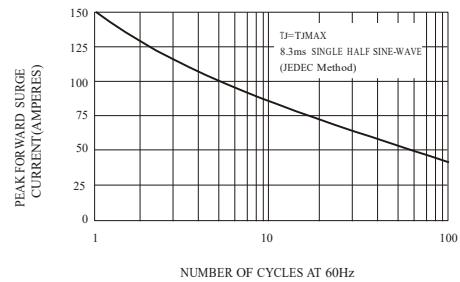


FIG.4-TYPICAL REVERSE CHARACTERISTICS

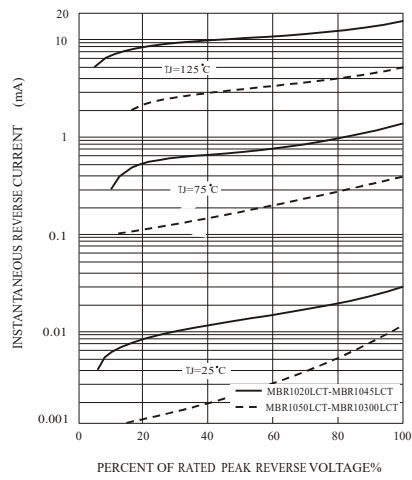
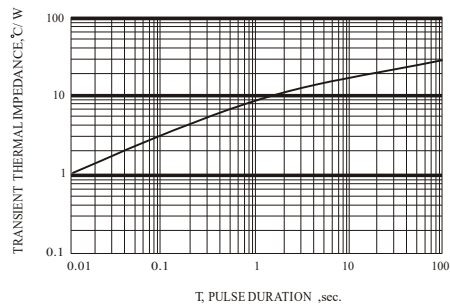


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Package	Packing	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton Size L×W×H(mm)	Quantity(pcs/carton)
TO-220	50pcs/Tube	558×148×38	1000	565×225×175	5000