



Features

- ◇ High surge capacity
- ◇ For use in low voltage,high frequency inverters, Free wheeling,and polarity protection applications.
- ◇ Metal silicon junction,majority carrier conduction.
- ◇ High current capability
- ◇ High forward surge capability
- ◇ Guard ring for over voltage protection.
- ◇ Lead free finish ,Rohs and WEEE compliant.

Applications

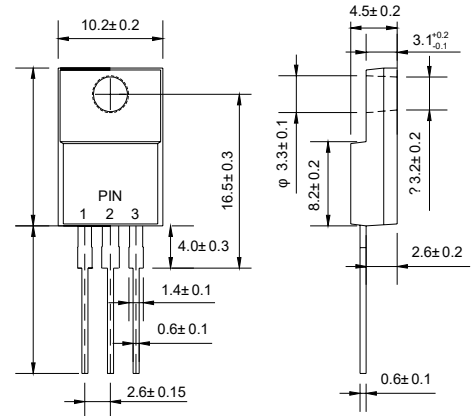
- ◇ Switching diode
- ◇ Switching mode power supply(SMPS)
- ◇ DC/DC converter
- ◇ LED lighting
- ◇ Adapter for notebook and game station

Mechanical Data

- ◇ Moisture Sensitivity: MSL Level 1,per J-STD-020
- ◇ Terminals:Matte Tin Finish.
Solderable per MIL-STD-202 Method 208
- ◇ Case Material: Molded Plastic;
Molding compound meet UL Flammability Classification Rating 94V-0
- ◇ Position:Any
- ◇ Weight:0.06 ounce,1.67grams.
- ◇ Case:JEDEC ITO-220AB

Reverse Voltage Range : 35-200Volts
 Forward Current:30.0Amperes

ITO-220AB



Dimensions in millimeters

MAXIMUM RATING

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%.

PARAMETER		SYMBOL	MBRF 3035CT	MBRF 3040CT	MBRF 3045CT	MBRF 3050CT	MBRF 3060CT	MBRF 3080CT	MBRF 3090CT	MBRF 30100CT	MBRF 30150CT	MBRF 30200CT	UNITS
Maximum repetitive peak reverse voltage		V _{RRM}	35	40	45	50	60	80	90	100	150	200	V
Maximum RMS voltage		V _{RWS}	24.5	28	31.5	35	42	56	63	70	105	140	V
Maximum DC blocking voltage		V _{DC}	35	40	45	50	60	80	90	100	150	200	V
Maximum average forward rectified current (per leg) (total device)		I _{F(AV)}	15 30										A
Peak forward surge current 8.3ms half-sine-wave superimposed on rated load(JEDEC method)		I _{FSM}	250										A
I ² t Rating for Fusing(t<8.3ms)		I ² t	259.375										A ² s
Maximun Forward Voltage at 15.0A,per leg		V _F	0.60			0.75		0.85			0.95		V
Maximun DC Reverse current at Rated DC Blocking Voltage	T=25℃	I _R	100					20					μA
	T=125℃	I _R	20					5					mA
Typical Thermal Resistance		R _{ΘJC}	4.5										℃/W
Typical junction capacitance: VR=4.0v,f=1MHz		C _J	560					420					pF
Junction temperature		T _J	150					175					℃
Storage temperature range		T _{STG}	-55~150					-55~175					℃



FIG.1-FORWARD CURRENT DERATING CURVE

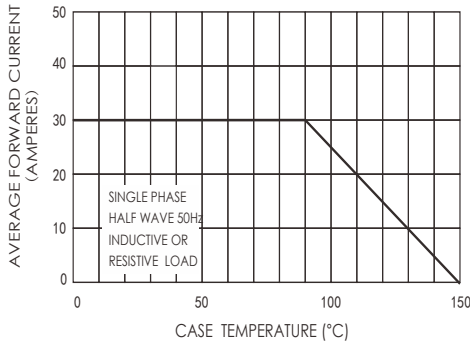


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER DIODE

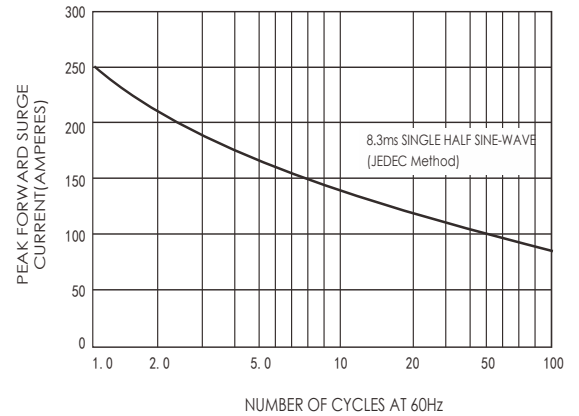


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

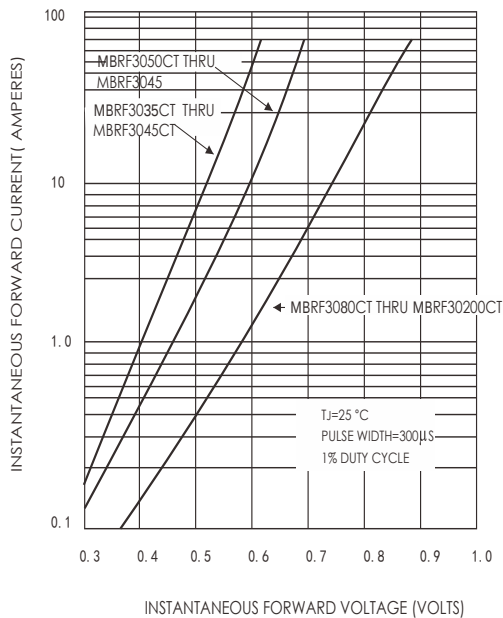
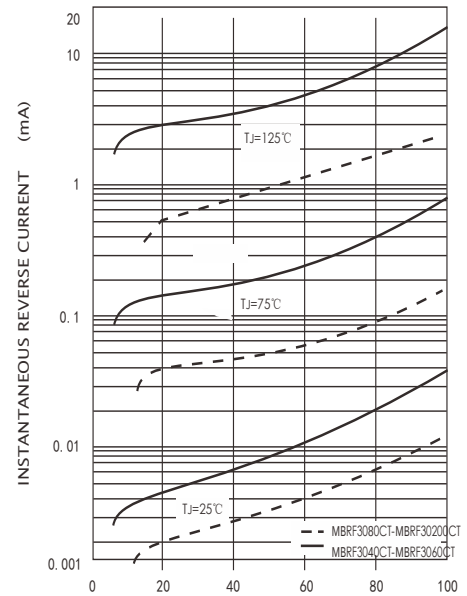


FIG.4-TYPICAL REVERSE CHARACTERISTICS



Package	Packing	Box Size L×W×H(mm)	Quatity(pcs/box)	Carton Size L×W×H(mm)	Quatity(pcs/carton)
TO-220	50pcs/Tube	560×150×50	1000	570×290×180	5000