



Reverse Voltage: 100Volts

Forward Current:8.0Amperes

Features

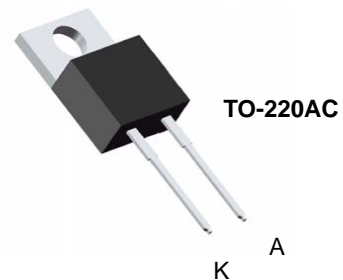
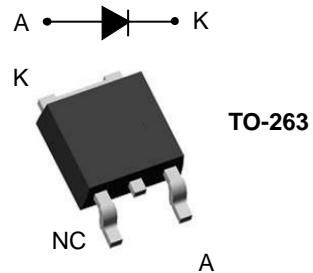
- ◇ Negligible switching lossess
- ◇ Low forward voltage drop
- ◇ Low power loss,high efficiency
- ◇ Excellent low reverse leakages
- ◇ High Junction temperature stability
- ◇ High current capability
- ◇ High forward surge capability
- ◇ Lead free finish ,Rohs and WEEE compliant.

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 ClassificationRating 94V-0
- ◇ Case:JEDEC TO-220AC,ITO-220AC, TO-263



MAXIMUM RATING

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	VALUE	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RWS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current	$I_{F(AV)}$	8	A
Peak forward surge current 8.3ms half-sine-wave	I_{FSM}	150	A
I^2t Rating for Fusing($t < 8.3ms$)	I^2t	93.375	A ² s
Typical Thermal Resistance	TO-220AC	$R_{\theta JC}$	3.0 °C/W
	ITO-220AC	$R_{\theta JC}$	4.5 °C/W
	TO-263	$R_{\theta JC}$	3.0 °C/W
Typical junction capacitance: VR=4.0v,f=1MHz	C_J	200	pF
Junction temperature	T_J	175	°C
Storage temperature range	TSTG	-55~175	°C


ELELTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	VALUE			UNITS	
			Min	Typ	Max		
Breakdown voltage per diode(min)	IR=0.5mA	V_{BR}	100	-	-	V	
Instantaneous forward voltage	IF=8.0A	TA= 25°C	VF	-	-	0.71	V
		TA= 125°C	VF	-	0.56	0.58	V
Maximum DC reverse current @Rated DC Blocking Vlotage	TA= 25°C	IR	-	1	5	μ A	
	TA=125°C	IR	-	2.0	6.0	mA	

ODERING PACK INFORMATION

Part No.	Packge	Pcking	Box Size L×W×H(mm)	Quatity(pcs/box)	Carton Size L×W×H(mm)	Quatity(pcs/carton)
MBR8100L	TO-220AB	50pcs/Tube	558×148×38	1000	565×225×170	5000
MBRF8100L	ITO-220AB	50pcs/Tube	558×148×38	1000	565×225×170	5000
MBRB8100L	TO-263	50pcs/Tube	560×178×35	1000	585×385×220	10000
MBRB8100L	TO-263	800pcs/Reel	340×336×36	800	400×353×365	8000



RATING AND CHARACTERISTICS CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

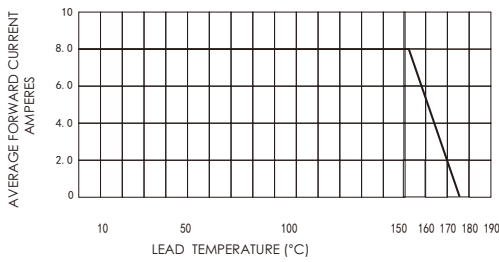


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

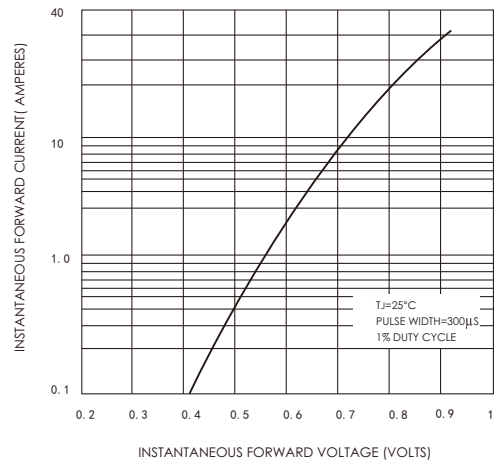


FIG.4-TYPICAL JUNCTION CAPACITANCE

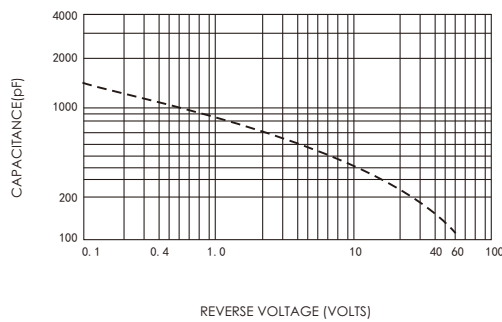


FIG.3-TYPICAL REVERSE CHARACTERISTICS

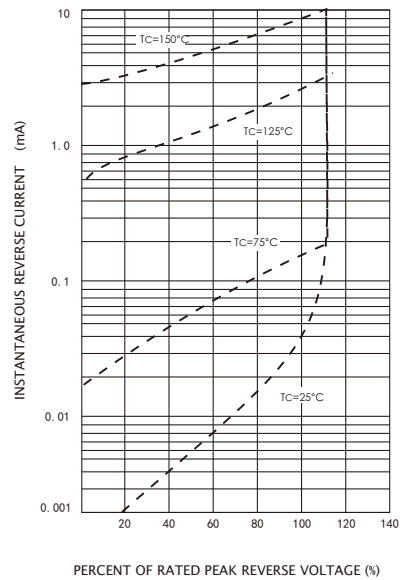
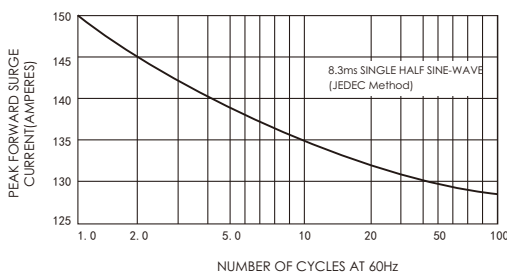
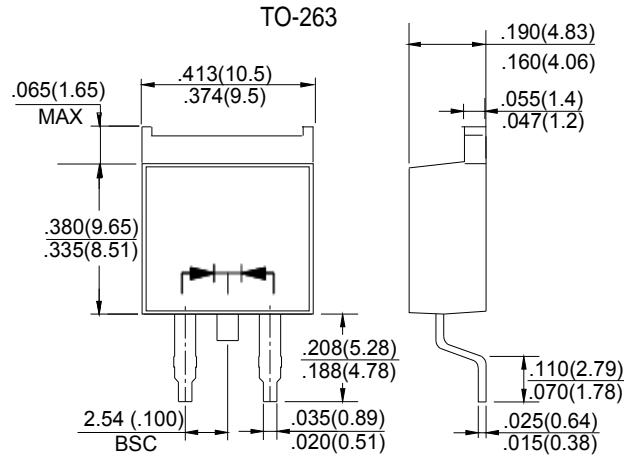


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

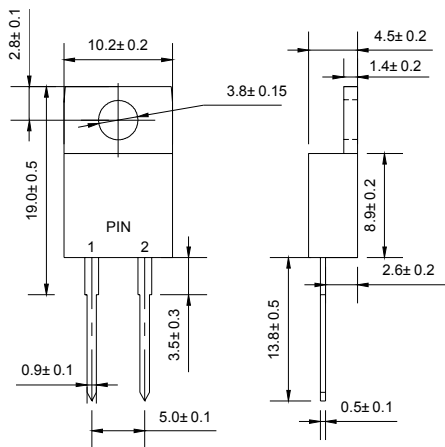


PACKAGE OUTLINE DIMENSIONS



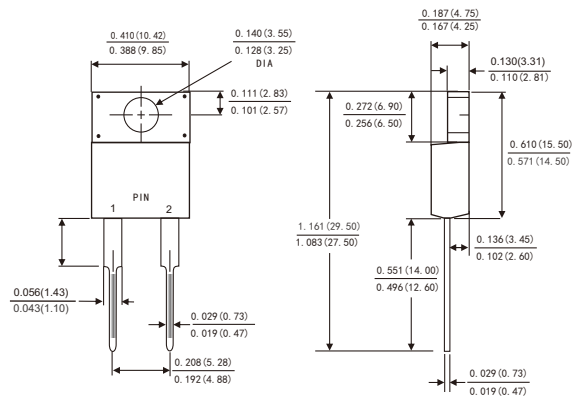
Dimensions in inches and (millimeters)

TO-220AC



Dimensions in millimeters

ITO-220AC



Dimensions in inches and (millimeters)