

Features

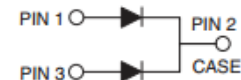
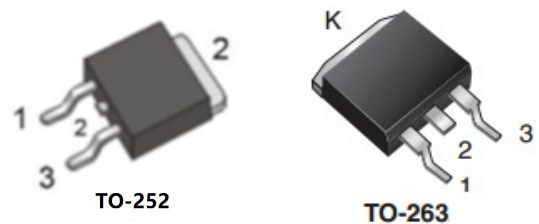
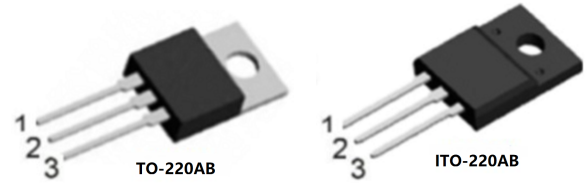
- ◇ Trench Schottky Barrier technology
- ◇ Ultra low forward voltage drop
- ◇ Low power loss,high efficiency
- ◇ Excellent low reverse leakages
- ◇ Excellent high temperature stability
- ◇ High current capability
- ◇ High forward surge capability
- ◇ Lead free finish ,Rohs and WEEE compliant.

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-220AB,ITO-220AB,TO-252,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	$I_{F(AV)}$	10	A
per device		5	A
Per diode			
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-220AB	$R_{\theta JA}$	12.0 °C/W
		$R_{\theta JC}$	2.5 °C/W
		$R_{\theta JL}$	3.0 °C/W
	ITO-220AB	$R_{\theta JC}$	4.5 °C/W
	TO-252	$R_{\theta JC}$	2.5 °C/W
	TO-263	$R_{\theta JC}$	2.5 °C/W
Typical junction capacitance: VR=4.0v,f=1MHz	CJ	380	pF
Junction temperature	T_J	175	°C
Storage temperature range	T_{STG}	-55~175	°C

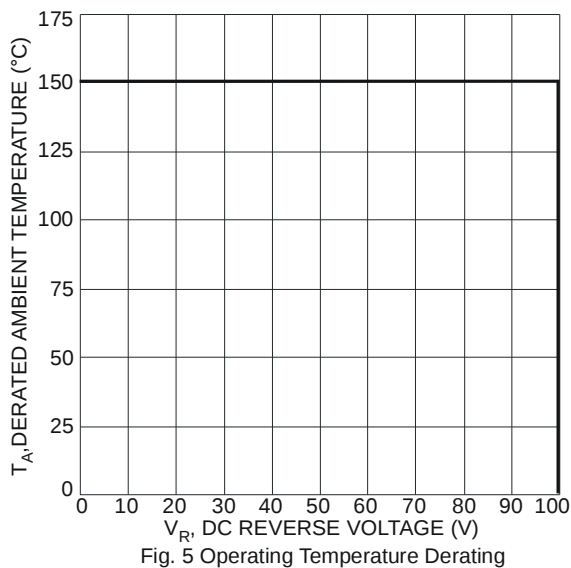
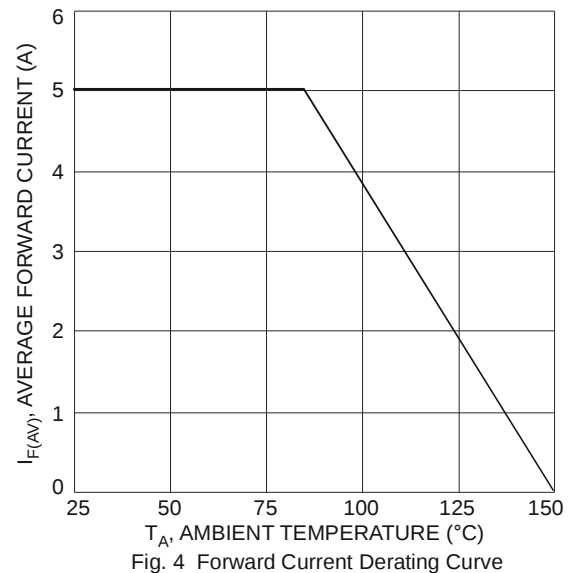
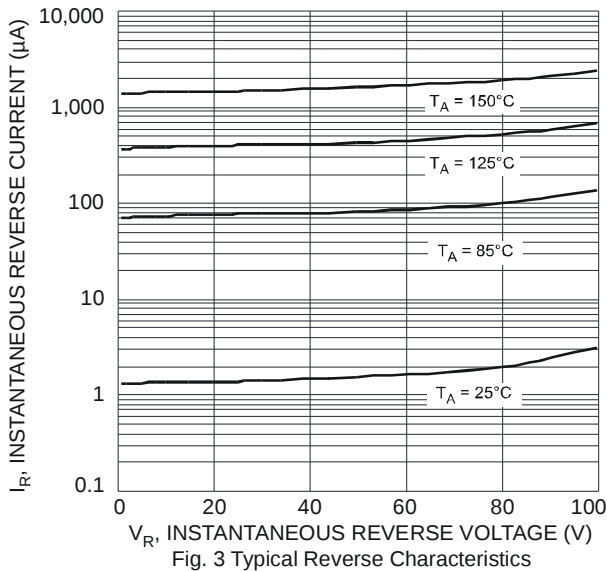
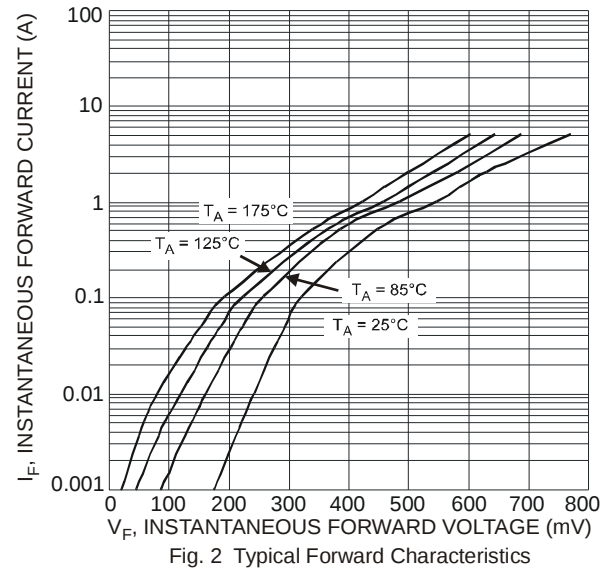
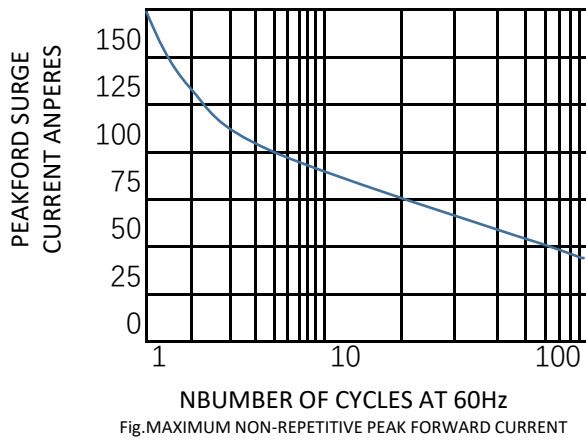
ELELTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	VALUE			UNITS
				Min	Typ	Max	
Breakdown voltage per diode(min)	IR=0.5mA		VB _R	100	-	-	V
Instantaneous forward voltage	IF=5A per leg	TA= 25°C	VF	-	0.82	0.85	V
		TA= 100°C	VF	-	0.75	-	V
		TA= 125°C	VF	-	0.73	-	V
	IF=3A per leg	TA= 25°C	VF	-	0.72	-	V
		TA= 100°C	VF	-	0.66	-	V
		TA= 125°C	VF	-	0.64	-	V
	IF=1A per leg	TA= 25°C	VF	-	0.62	-	V
		TA= 100°C	VF	-	0.60	-	V
		TA= 125°C	VF	-	0.58	-	V
Maximum DC reverse current @Rated DC Blocking Vlotage	T _A = 25°C		IR	-	1.0	10	μ A
	T _A =125°C		IR	-	-	10000	μ A

ODERING PACK INFORMATION

Part No.	Packge	Peking	Box Size L×W×H(mm)	Quatity(pcs/box)	Carton Size L×W×H(mm)	Quatity(pcs/carton)
MBR10100CT	TO-220	50pcs/Tube	558×148×38	1000	565×225×170	5000
MBRF10100CT	ITO-220	50pcs/Tube	558×148×38	1000	565×225×170	5000
MBRD10100CT	TO-252	50pcs/Tube	558×148×38	1000	565×225×170	5000
MBRB10100CT	TO-263	50pcs/Tube	558×148×38	4000	565×225×170	20000

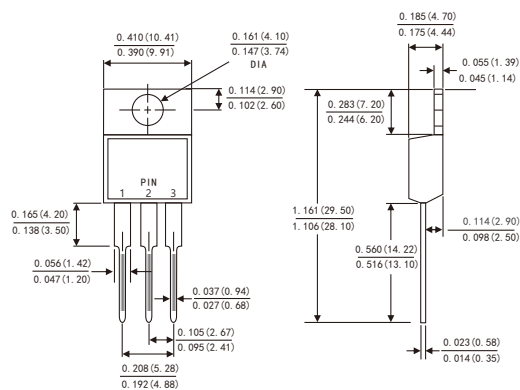
RATING AND CHARACTERISTICS CURVES



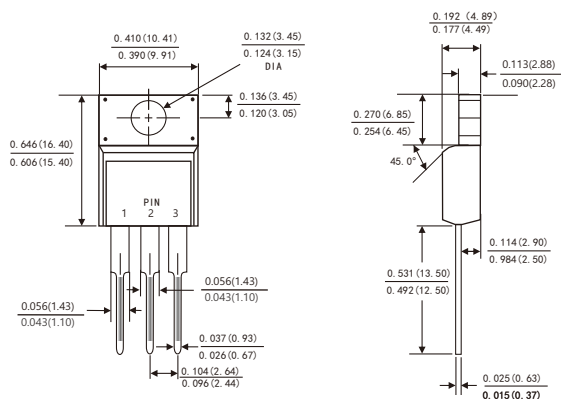
PACKAGE OUTLINE DIMENSIONS

Dimensions in inches and (millimeters)

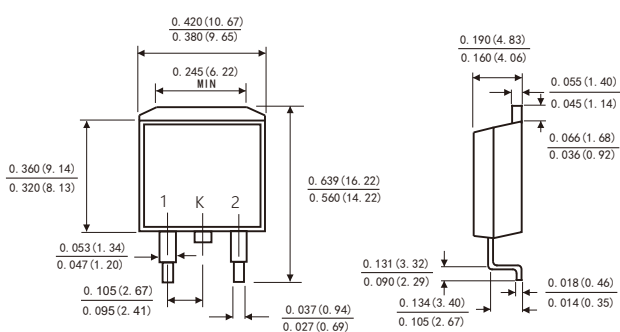
TO-220AB



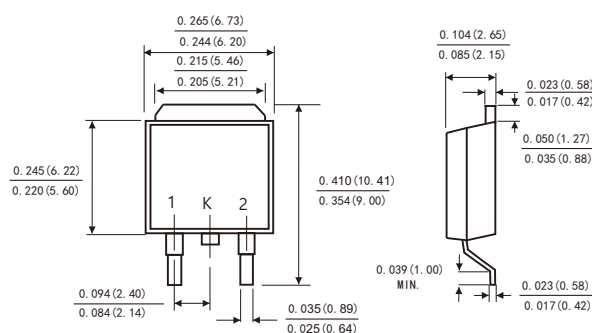
ITO-220AB



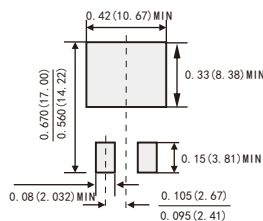
TO-263



TO-252



Suggested Pad Layout



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