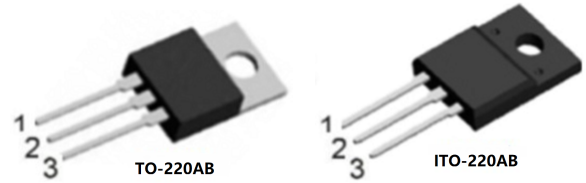




Features

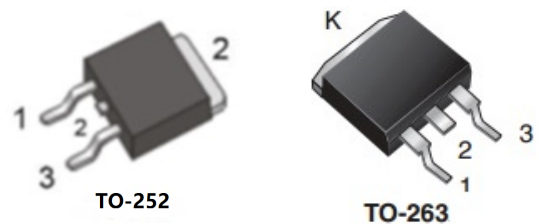
- ◇ Trench Schottky Barrier technology
- ◇ Ultra low forward voltage drop
- ◇ Low power loss,high efficiency
- ◇ Excellent low reverse leakages
- ◇ Excellent high temperature stability
- ◇ High current capability
- ◇ High forward surge capability
- ◇ Lead free finish ,Rohs and WEEE compliant.

Reverse Voltage: 100Volts
 Forward Current:10.0Amperes



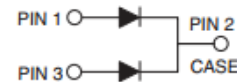
Applications

- ◇ 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 Per diode		5		
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: $V_R=4.0v, f=1MHz$	C_J	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	TA= 25°C	IR	-	1.0	10	μ A	
	TA=125°C	IR	-	-	10000	μ A	

ODERING PACK INFORMATION

Part No.	Package	Packing	Quatity(pcs/box)	Quatity(pcs/carton)
MBR10100CT	TO-220	50pcs/Tube	1000	5000
MBRF10100CT	ITO-220	50pcs/Tube	1000	5000
MBRD10100CT	TO-252	80pcs/Tube	4000	40000
MBRD10100CT	TO-252	2500pcs/Reel	2500	12500/25000
MBRB10100CT	TO-263	50pcs/Tube	1000	5000/10000
MBRB10100CT	TO-263	800pcs/Reel	800	4000/8000



RATING AND CHARACTERISTICS CURVES

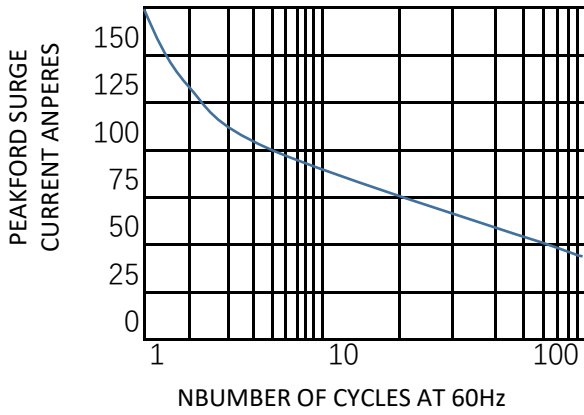


Fig. 1. MAXIMUM NON-REPETITIVE PEAK FORWARD CURRENT

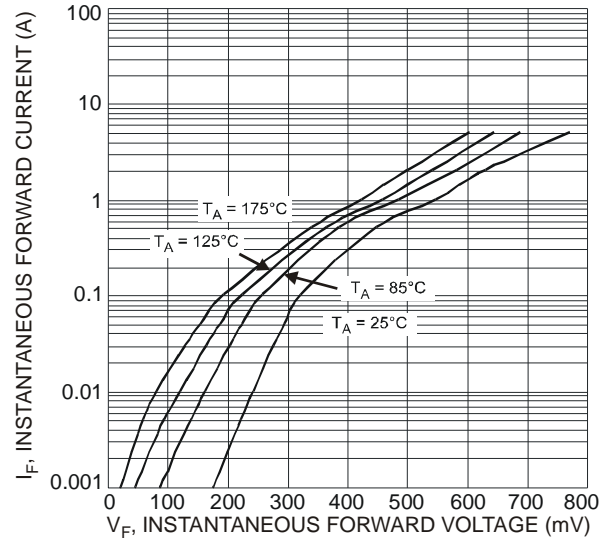


Fig. 2. Typical Forward Characteristics

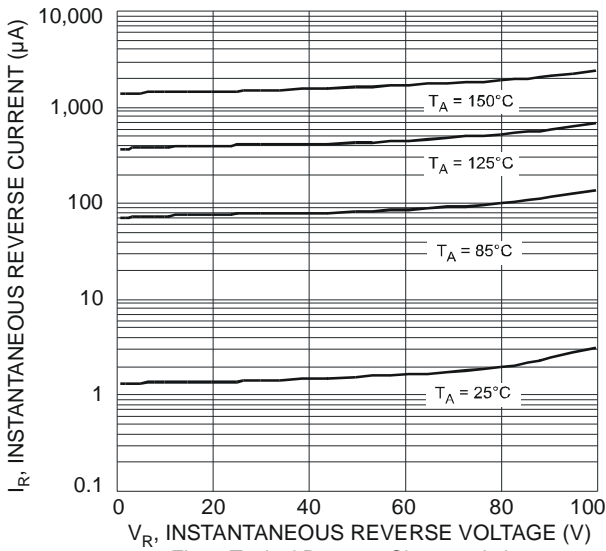


Fig. 3. Typical Reverse Characteristics

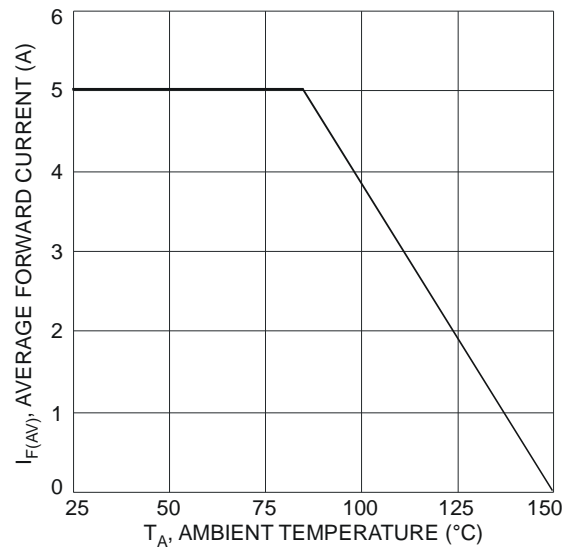


Fig. 4. Forward Current Derating Curve

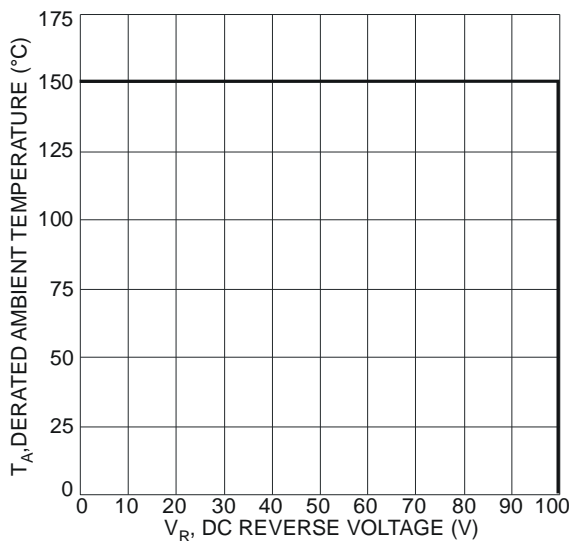


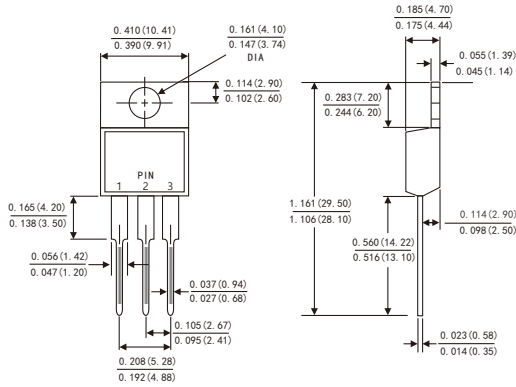
Fig. 5. Operating Temperature Derating



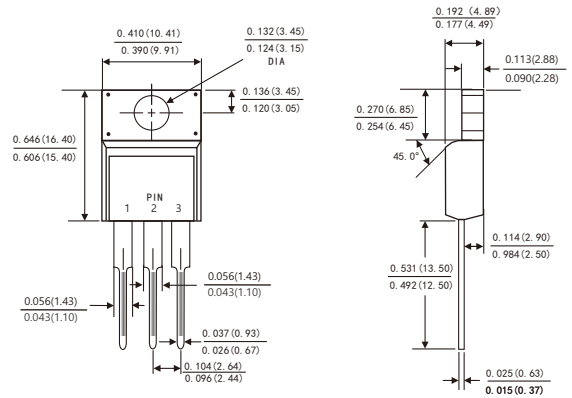
PACKAGE OUTLINE DIMENSIONS

Dimensions in inches and (millimeters)

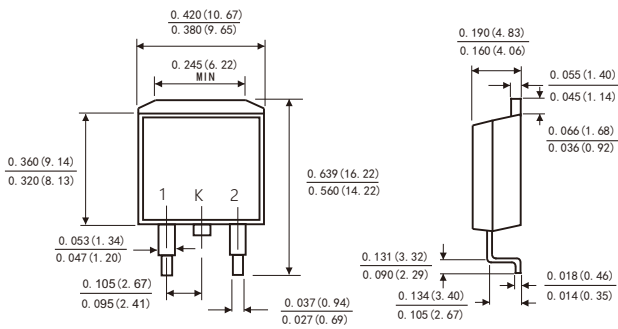
TO-220AB



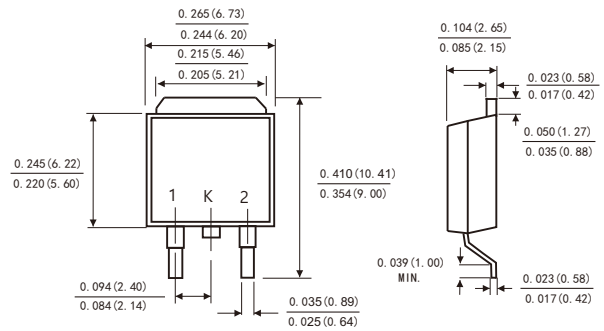
ITO-220AB



TO-263

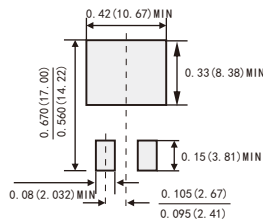


TO-252



Suggested Pad Layout

(TO-263)



Suggested Pad Layout

(TO-252)

