



Reverse Voltage: 200Volts
 Forward Current:20.0Amperes

Features

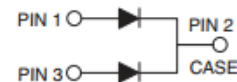
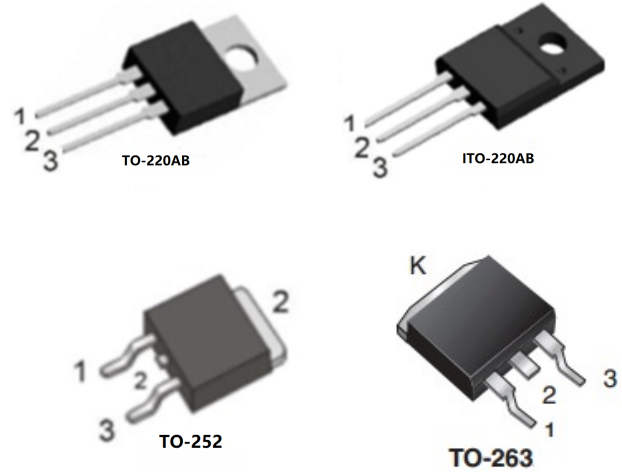
- ◇ Guarding for over voltage protection
- ◇ Low forward voltage drop
- ◇ Low power loss,high efficiency
- ◇ Excellent low reverse leakages
- ◇ Excellent high temperature stability
- ◇ High current capability
- ◇ High forward surge capability
- ◇ Lead free finish ,Rohs and WEEE compliant.

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 Classification Rating 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}	200	V
Maximum RMS voltage	V_{RWS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Maximum average forward rectified current	$I_{F(AV)}$	20	A
per device Per diode		10	
Peak forward surge current 8.3ms half-sine-wave	I_{FSM}	250	A
I^2t Rating for Fusing($t < 8.3ms$)	I^2t	259	A ² s
Typical Thermal Resistance	TO-220AB	$R_{\theta JA}$	13.6 °C/W
		$R_{\theta JC}$	3.2 °C/W
		$R_{\theta JL}$	3.4 °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: $V_R=4.0v, f=1MHz$	CJ	680	pF
Junction temperature	T_J	150	°C
Storage temperature range	TSTG	-55~150	°C



ELELTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	VALUE			UNITS	
			Min	Typ	Max		
Breakdown voltage per diode(min)	IR=0.2mA	V_{BR}	200	-	-	V	
Instantaneous forward voltage	IF=10A per leg	TA= 25°C	VF	-	0.87	0.95	V
		TA= 125°C	VF	-	0.76	-	V
	IF=5A per leg	TA= 25°C	VF	-	0.80	-	V
		TA= 125°C	VF	-	0.68	-	V
	IF=3A per leg	TA= 25°C	VF	-	0.76	-	V
		TA= 125°C	VF	-	0.63	-	V
Maximum DC reverse current @Rated DC Blocking Vlotage	TA= 25°C	IR	-	1	10	μ A	
	TA=125°C	IR	-	1000	20000	μ A	

ORDERING PACK INFORMATION

Part No.	Package	Pcking	Quatity(pcs/box)	Quatity(pcs/carton)
MBR20200CT	TO-220	50pcs/Tube	1000	5000
MBRF20200CT	ITO-220	50pcs/Tube	1000	5000
MBRD20200CT	TO-252	80pcs/Tube	4000	40000
MBRD20200CT	TO-252	2500pcs/Reel	2500	12500/25000
MBRB20200CT	TO-263	50pcs/Tube	1000	5000/10000
MBRB20200CT	TO-263	800pcs/Reel	800	4000/8000

RATINGS AND CHARACTERISTICS CURVES



FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

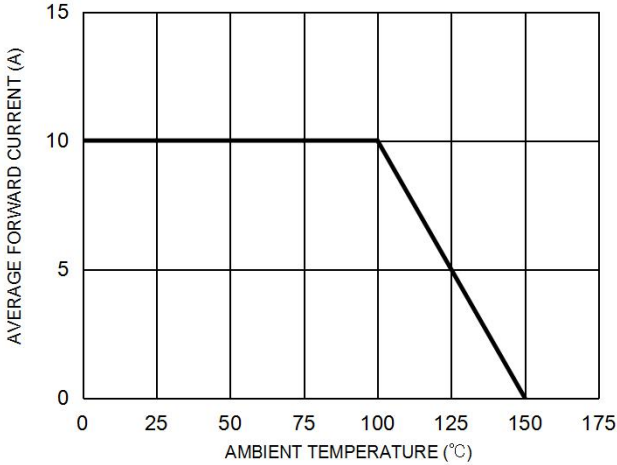


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

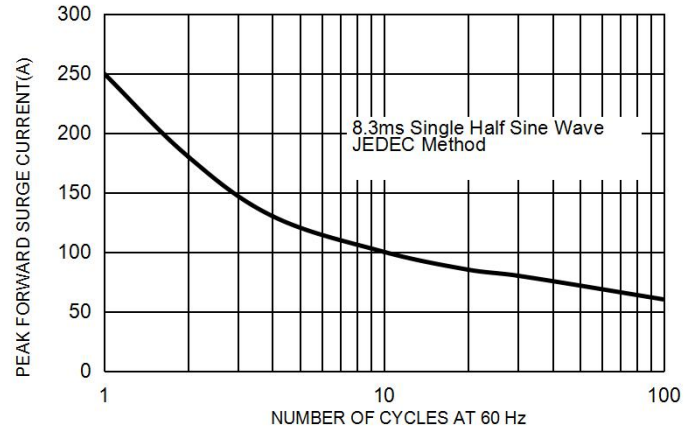


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

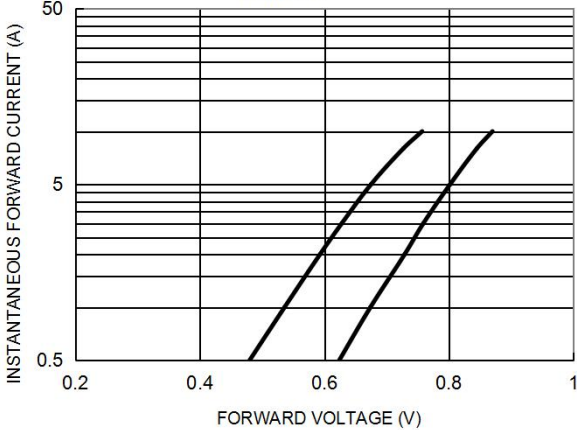
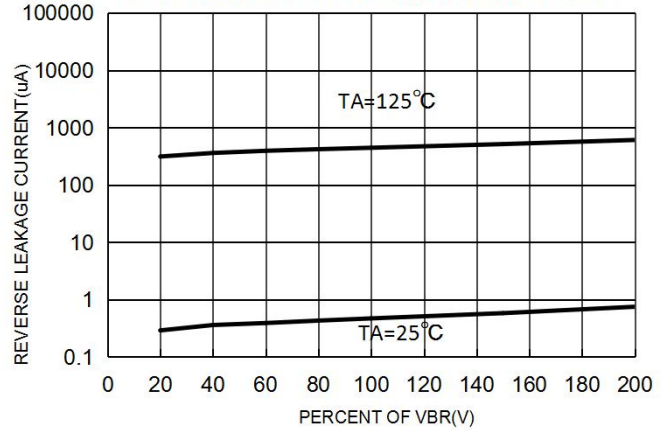


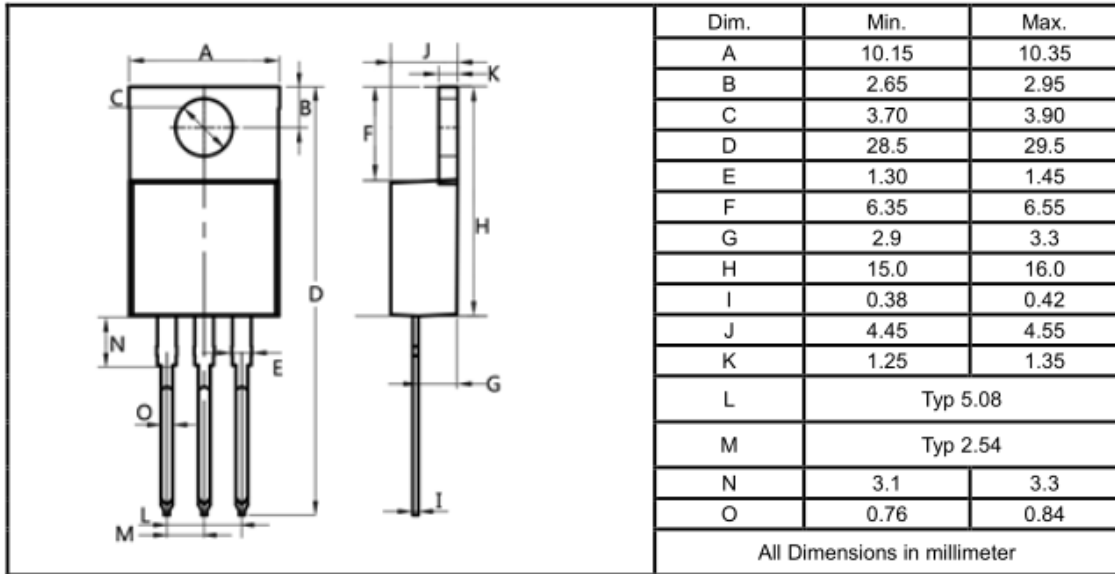
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



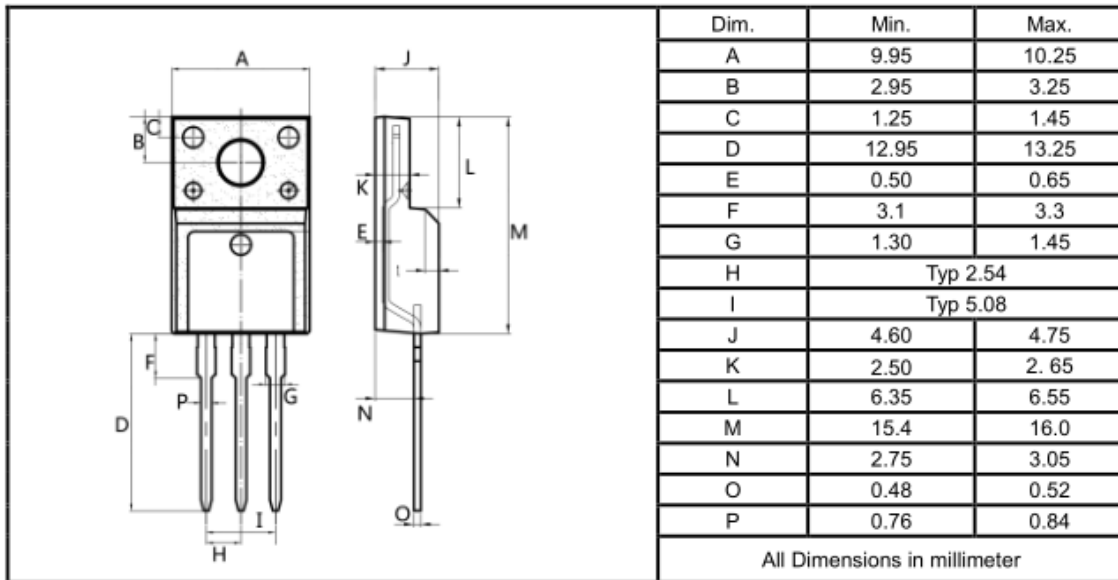


PACKAGE OUTLINE DIMENSIONS

TO-220AB



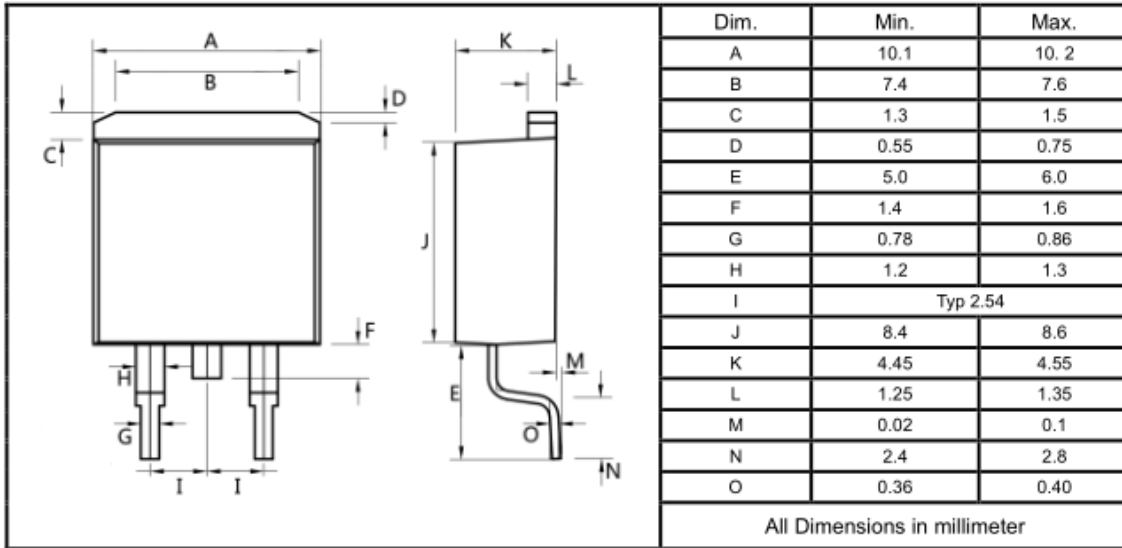
TO-220F





PACKAGE OUTLINE DIMENSIONS

TO-263



TO-252

