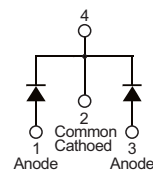


PRODUCT CHARACTERISTICS

VR(@IC=0.5mA)	45V
VF(@IF=5A)	0.6V
IR(@VR=45V)	50uA
ID	20A

Symbol

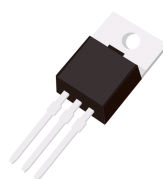


MECHANICAL CHARACTERISTICS

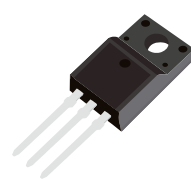
- * Case: Epoxy, Molded
- * Finish: All External Surfaces Corrosion Resistant and Terminal
- * Leads are Readily Solderable
- * Lead Temperature for Soldering Purposes:
260 °C Max. for 10 Seconds

FEATURES

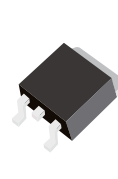
- * Guard Ring for Stress Protection
- * Low Forward Voltage
- * Low Power Loss/High Efficiency
- * High Surge Capacity
- * Low Stored Charge Majority Carrier Conduction
- * Pb Free Packages are Available*



TO-220



TO-220F



TO-263

ORDER INFORMATION

Order codes		Package	Packing
Halogen-Free	Halogen		
N/A	MBR2045F	TO-220F	50 pieces/Tube
N/A	MBR2045A	TO-220	50 pieces/Tube
N/A	MBR2045E	TO-263	800 pieces/reel

MAIMUM RATINGS (Each Diode Leg)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Average Rectified Output Current	(Total)	20	A
	(per Leg)	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Reate Load	I_{FSM}	200	A
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 175	°C

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Test Conditions	Min	Typ.	Max	Unit
Peak Repetitive Reverse Voltage	B_V	$I_C=0.5mA, T_J=25^{\circ}C$	—	45	—	V
Forward Voltage Drop	V_F	$I_F=10A, T_J=25^{\circ}C$	—	0.57	0.6	V
Leakage Current	I_R	$V_R=45V, T_J=25^{\circ}C$	—	—	0.05	mA
		$V_R=45V, T_J=125^{\circ}C$	—	—	6	

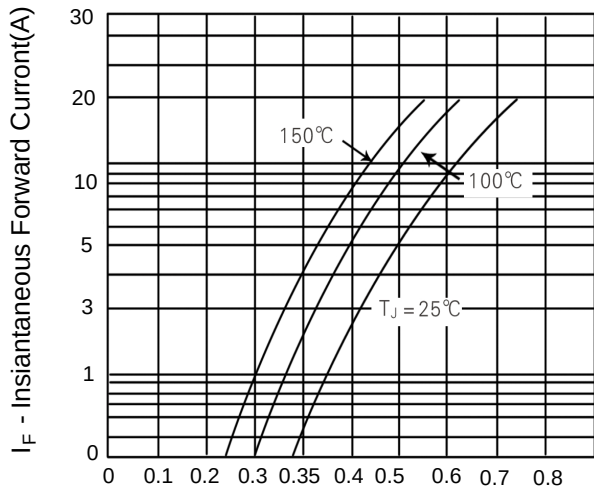


Figure 1. Typical Forward Voltage Per Diode

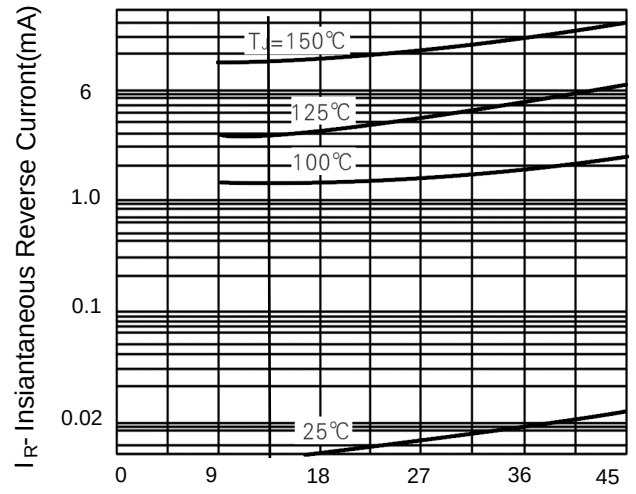


Figure 2. Typical Reverse Current Per Diode

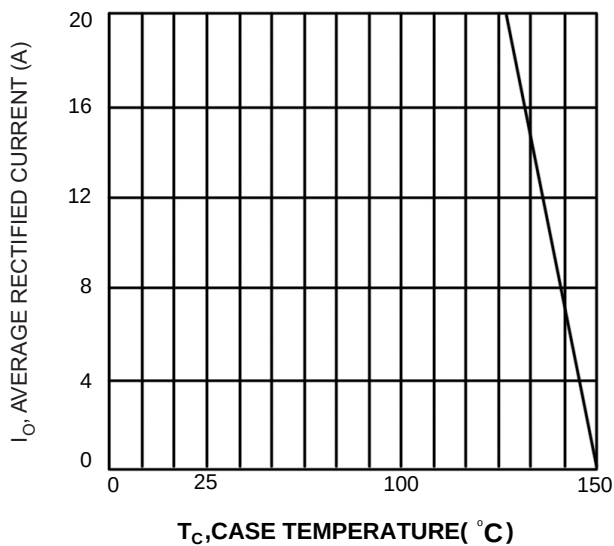


Fig.3 Forward Current Derating Curve

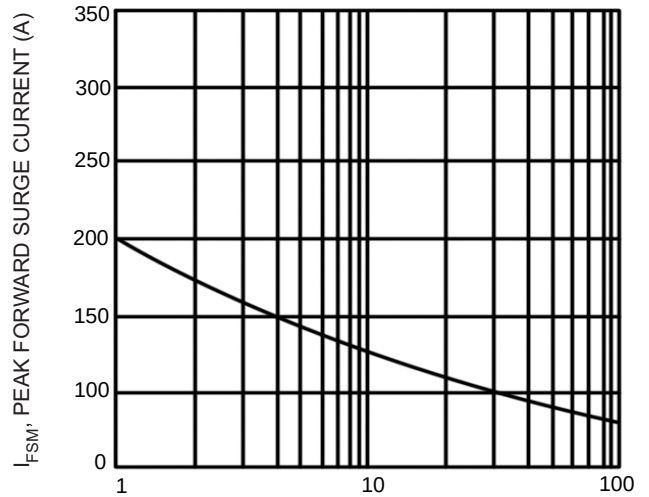
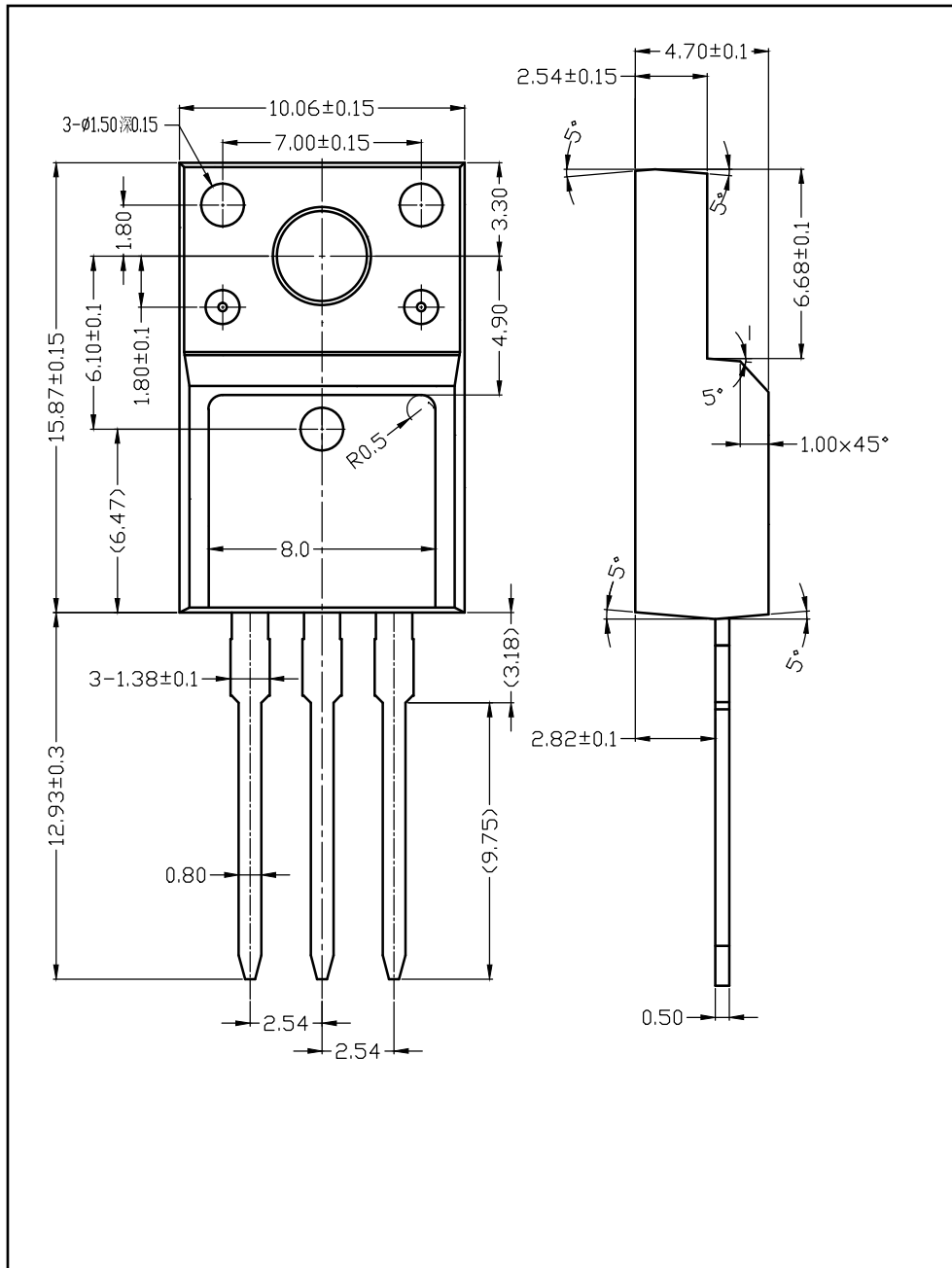
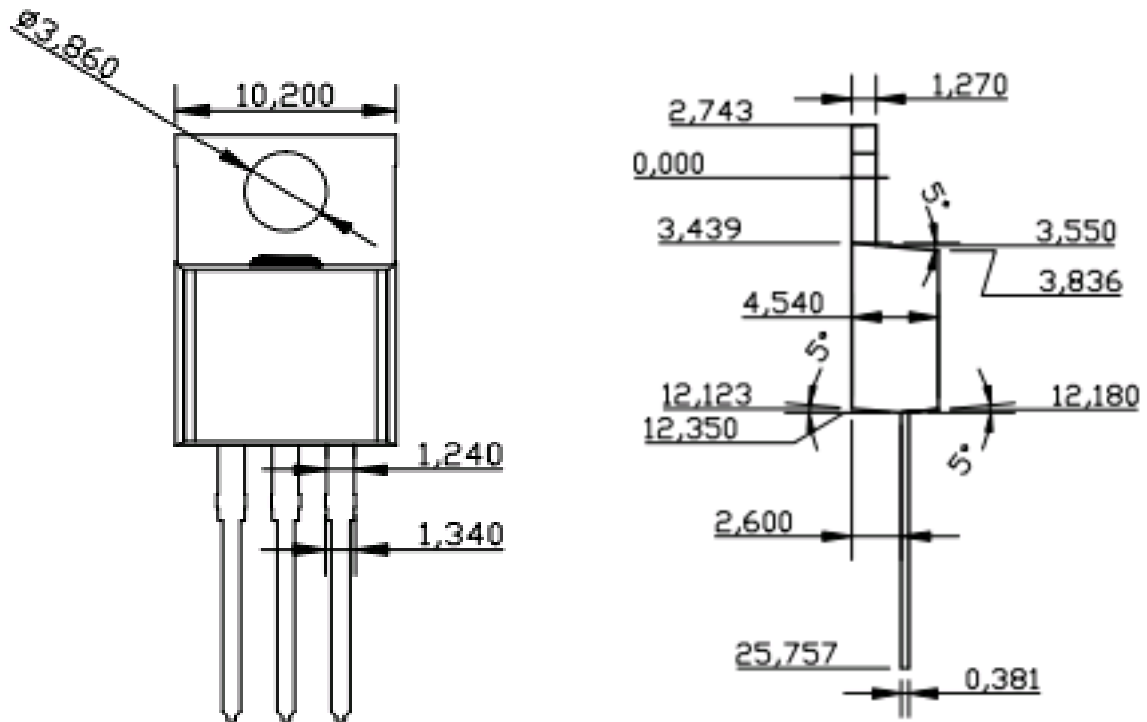


Fig.4 Max Non-Repetitive Surge Current

■ TO-220F-3L PACKAGE OUTLINE DIMENSIONS



■ TO-220-3L PACKAGE OUTLINE DIMENSIONS



TO-263-2L PACKAGE OUTLINE DIMENSIONS

