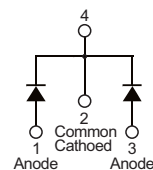


PRODUCT CHARACTERISTICS

VR(@IC=0.5mA)	45V
VF(@IF=5A)	0.58V
IR(@VR=45V)	50uA
ID	10A

Symbol

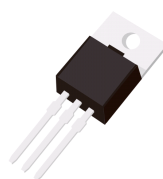


MECHANICAL CHARACTERISTICS

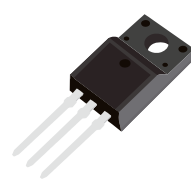
- * Case: Epoxy, Molded
- * Finish: All External Surfaces Corrosion Resistant and Terminal
- * Leads are Readily Solderable
- * Lead Temperature for Soldering Purposes:
260 °C Max. for 10 Seconds

FEATURES

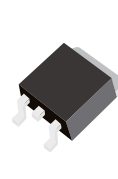
- * Guard Ring for Stress Protection
- * Low Forward Voltage
- * Low Power Loss/High Efficiency
- * High Surge Capacity
- * Low Stored Charge Majority Carrier Conduction
- * Pb Free Packages are Available*



TO-220



TO-220F



TO-263

ORDER INFORMATION

Order codes		Package	Packing
Halogen-Free	Halogen		
N/A	MBR1045F	TO-220F	50 pieces/Tube
N/A	MBR1045A	TO-220	50 pieces/Tube
N/A	MBR1045E	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)	10	A
	(per Leg)	5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Reate Load	I_{FSM}	150	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	$I_C=0.5mA$ $T_J=25^\circ C$	—	52	—	V
Forward Voltage Drop	V_F	$I_F=5A$, $T_J=25^\circ C$	—	0.53	0.58	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	

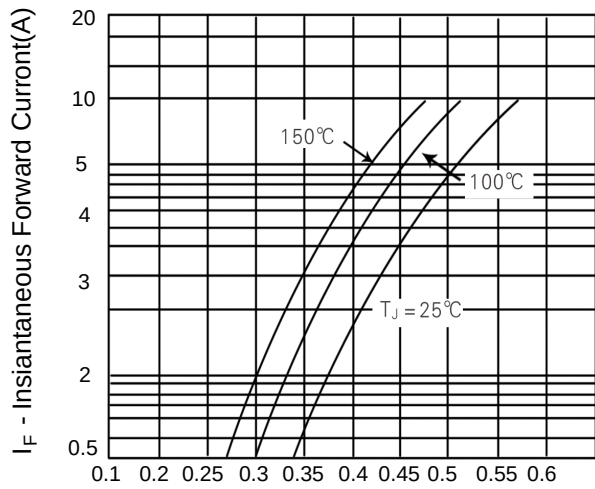


Figure 1. Typical Forward Voltage Per Diode

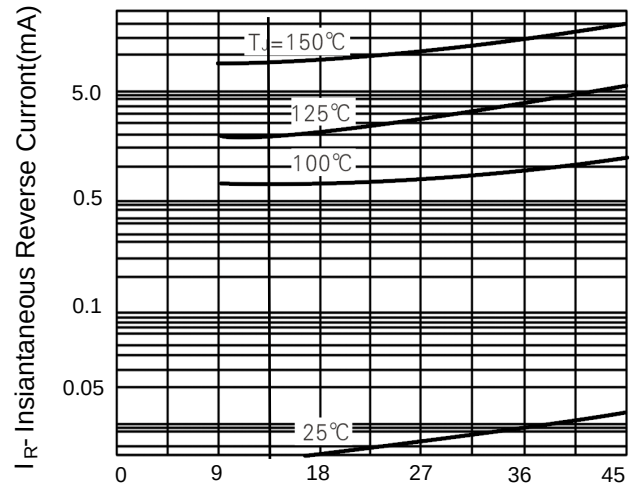
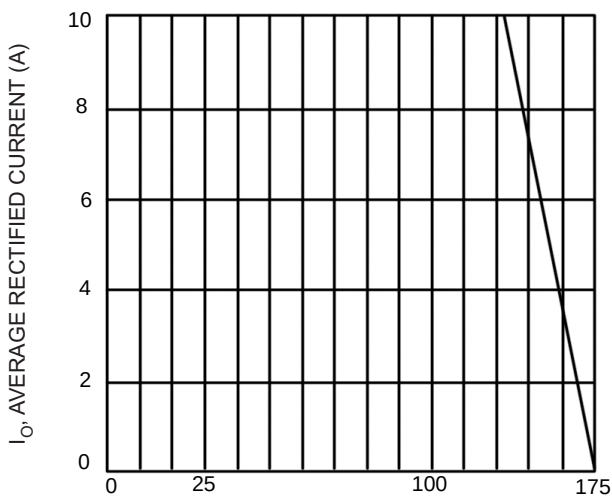
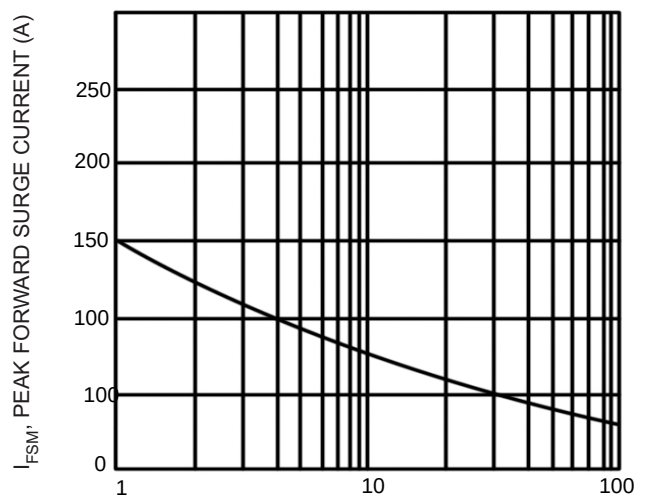


Figure 2. Typical Reverse Current Per Diode

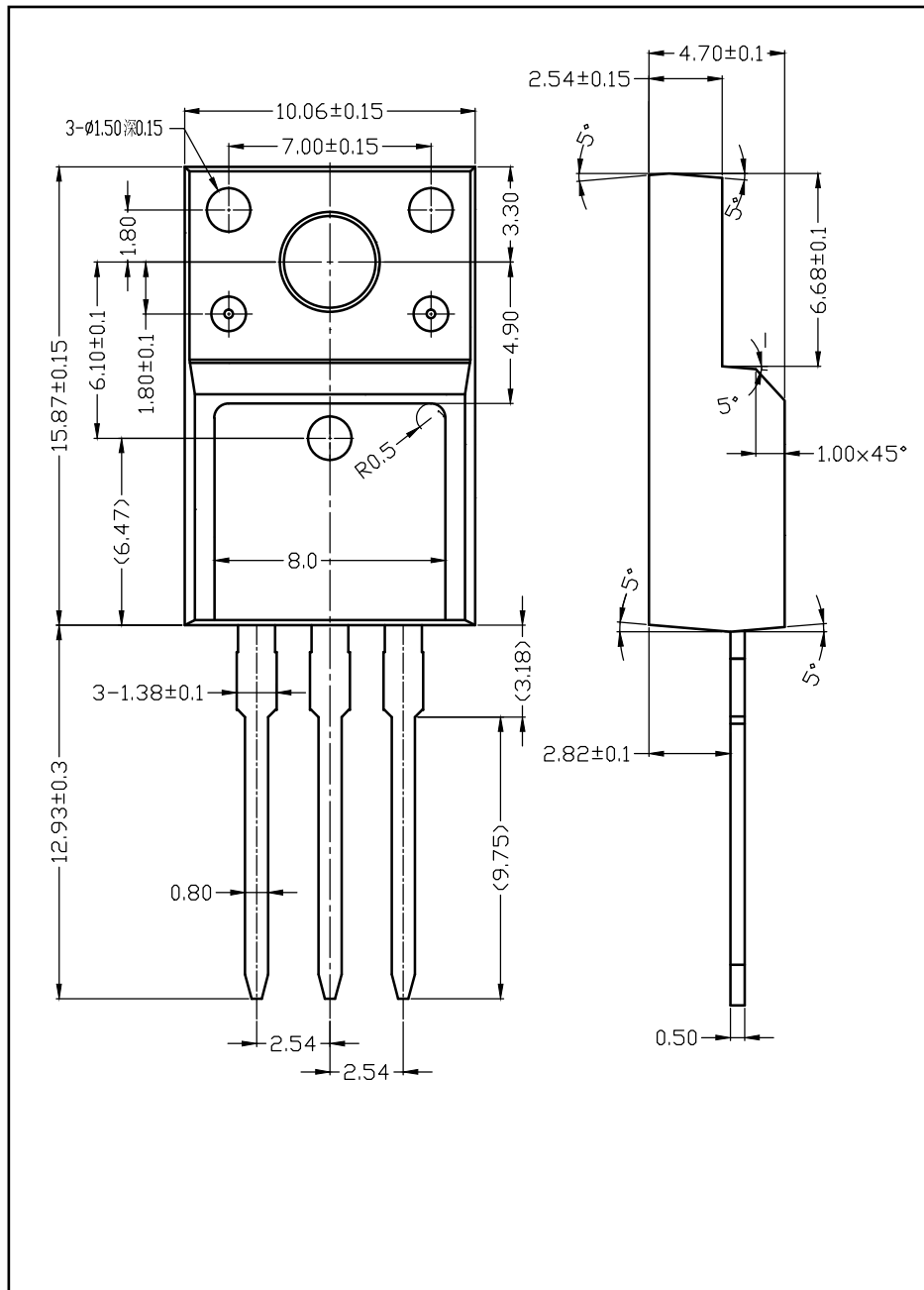


T_C , CASE TEMPERATURE(°C)
Fig.3 Forward Current Derating Curve

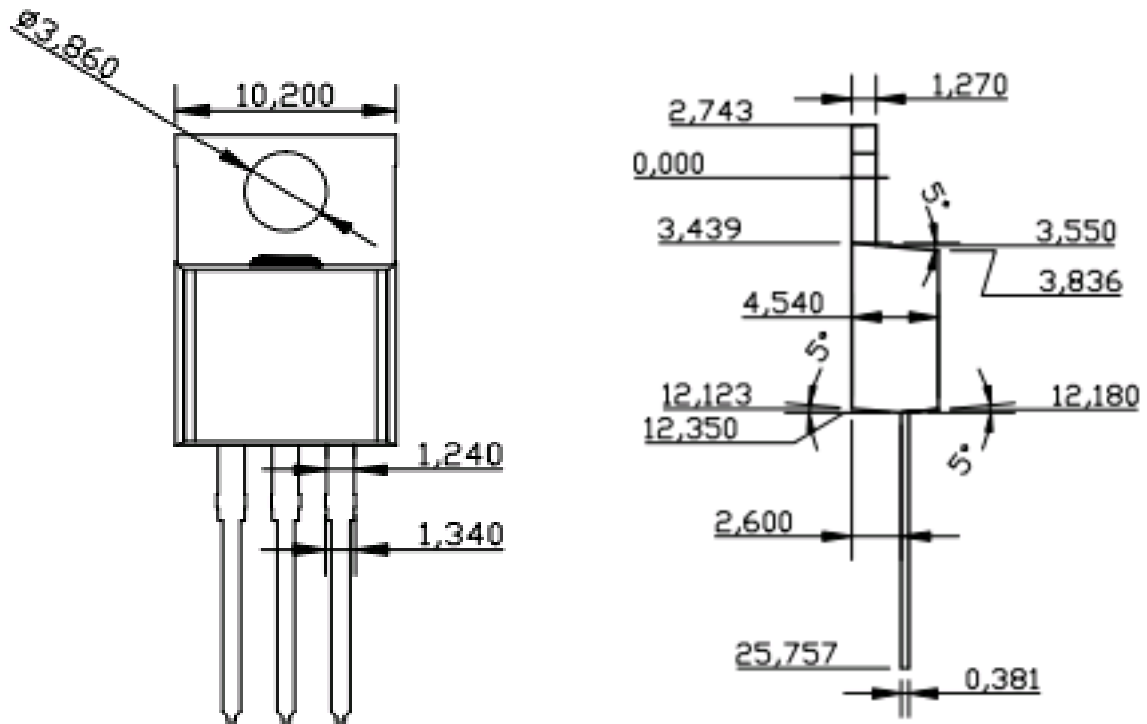


NUMBER OF CYCLES AT 60HZ
Fig.4 Max Non-Repetitive Surge Current

■ TO-220F-3L PACKAGE OUTLINE DIMENSIONS



■ TO-220-3L PACKAGE OUTLINE DIMENSIONS



■ TO-263-3L PACKAGE OUTLINE DIMENSIONS

