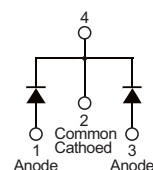


■ PRODUCT CHARACTERISTICS

VR(@IC=0.5mA)	150V
VF(@IF=10A)	0.88V
IR(@VR=150V)	20uA
ID	20A

Symbol

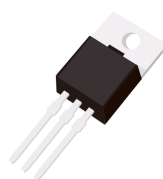


■ MECHANICAL CHARACTERISTICS

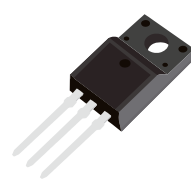
- * Case: Epoxy, Molded
- * Finish: All External Surfaces Corrosion Resistant and Terminal
- * Leads are Readily Solderable
- * Lead Temperature for Soldering Purposes:
260 °C Max. for 10 Seconds

■ FEATURES

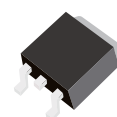
- * Guard Ring for Stress Protection
- * Low Forward Voltage
- * Low Power Loss/High Efficiency
- * High Surge Capacity
- * Low Stored Charge Majority Carrier Conduction
- * Pb Free Packages are Available*



TO-220



TO-220F



TO-263

■ ORDER INFORMATION

Order codes		Package	Packing
Halogen-Free	Halogen		
N/A	MBR20150F	TO-220F	50 pieces/Tube
N/A	MBR20150A	TO-220	50 pieces/Tube
N/A	MBR20150E	TO-263	800 pieces/reel

■ MAIMUM RATINGS(Each diode leg)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	150	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	$I_C=0.5mA, T_J=25^{\circ}C$	—	165	—	V
Forward Voltage Drop	V_F	$I_F=10A, T_J=25^{\circ}C$	—	0.85	0.88	V
Leakage Current	I_R	$V_R=150V, T_J=25^{\circ}C$	—	—	0.02	mA
		$V_R=150V, T_J=125^{\circ}C$	—	—	6	

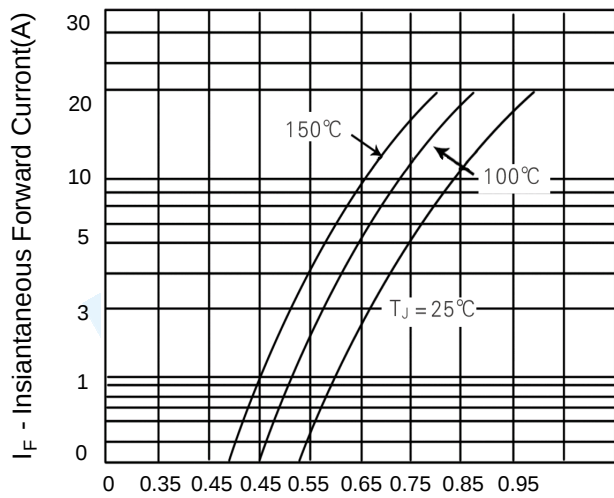


Figure 1. Typical Forward Voltage Per Diode

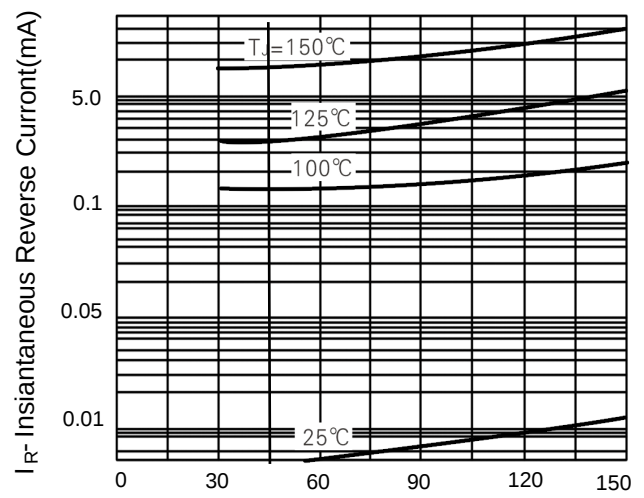


Figure 2. Typical Reverse Current Per Diode

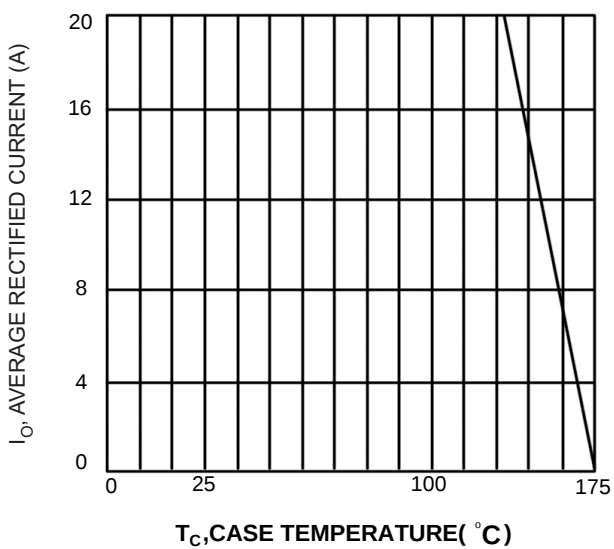


Fig.3 Forward Current Derating Curve

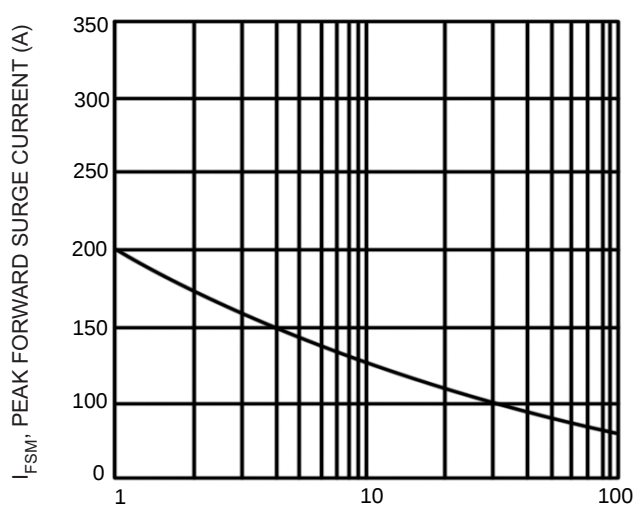


Fig.4 Max Non-Repetitive Surge Current

Technical drawing of a mechanical part, showing three views: front view, top view, and side view. The drawing includes dimensions and tolerances in millimeters.

Front View Dimensions:

- Overall width: 10.06 ± 0.15
- Overall height: 15.87 ± 0.15
- Top flange width: 7.00 ± 0.15
- Top flange height: 3.30
- Central circular feature diameter: 8.0
- Pin diameter: $3 - \phi 1.50 \pm 0.15$
- Pin height: 12.93 ± 0.3
- Pin spacing: 2.54
- Pin base width: 0.80
- Pin base height: 0.80
- Pin base radius: $R0.5$
- Pin base chamfer: $1.00 \times 45^\circ$
- Pin base chamfer angle: 5°
- Pin base chamfer length: 2.82 ± 0.1
- Pin base chamfer width: 0.50

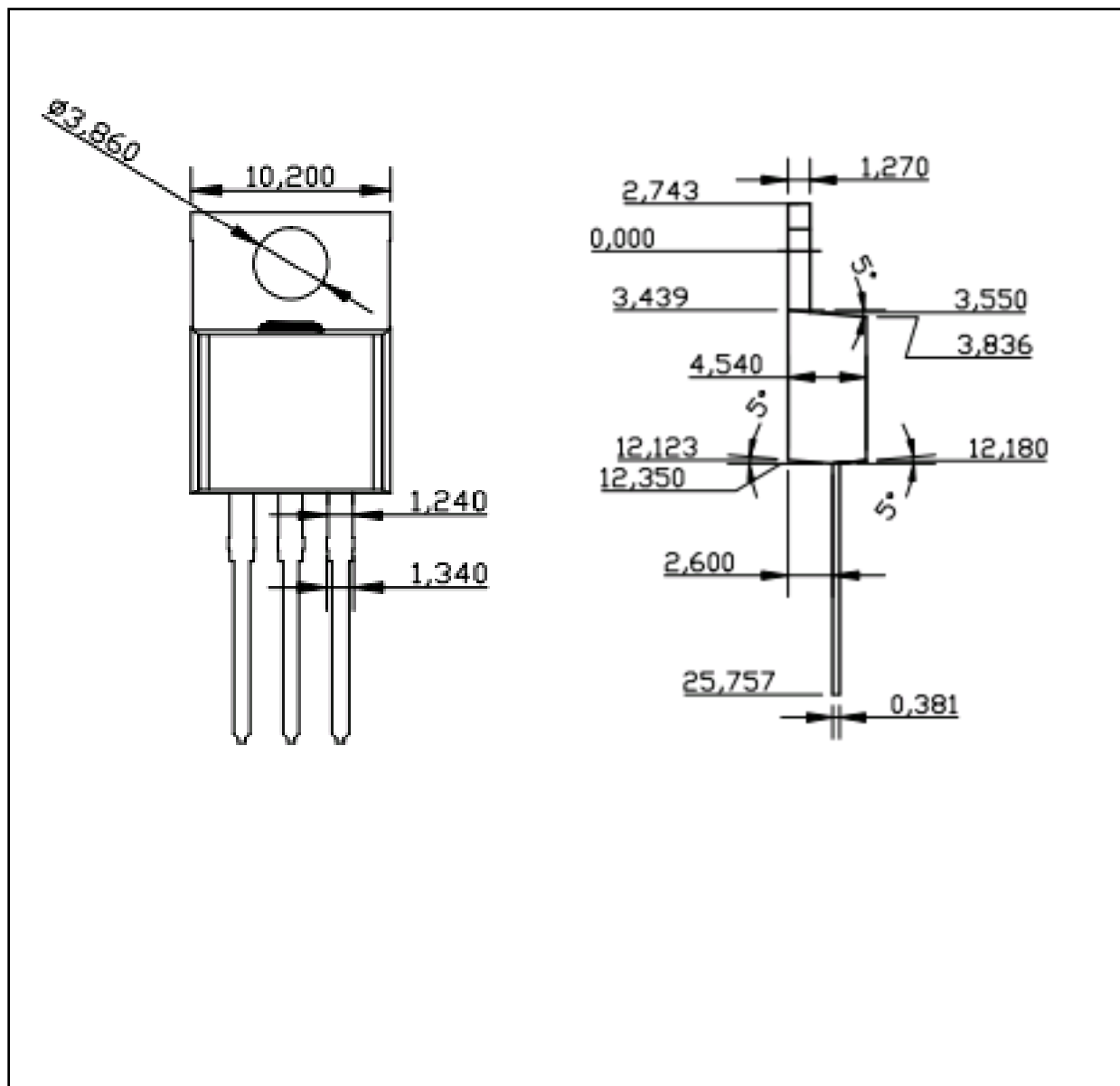
Top View Dimensions:

- Overall width: 10.06 ± 0.15
- Overall height: 15.87 ± 0.15
- Top flange width: 7.00 ± 0.15
- Top flange height: 3.30
- Central circular feature diameter: 8.0
- Pin diameter: $3 - \phi 1.50 \pm 0.15$
- Pin height: 12.93 ± 0.3
- Pin spacing: 2.54
- Pin base width: 0.80
- Pin base height: 0.80
- Pin base radius: $R0.5$
- Pin base chamfer: $1.00 \times 45^\circ$
- Pin base chamfer angle: 5°
- Pin base chamfer length: 2.82 ± 0.1
- Pin base chamfer width: 0.50

Side View Dimensions:

- Overall width: 10.06 ± 0.15
- Overall height: 15.87 ± 0.15
- Top flange width: 7.00 ± 0.15
- Top flange height: 3.30
- Central circular feature diameter: 8.0
- Pin diameter: $3 - \phi 1.50 \pm 0.15$
- Pin height: 12.93 ± 0.3
- Pin spacing: 2.54
- Pin base width: 0.80
- Pin base height: 0.80
- Pin base radius: $R0.5$
- Pin base chamfer: $1.00 \times 45^\circ$
- Pin base chamfer angle: 5°
- Pin base chamfer length: 2.82 ± 0.1
- Pin base chamfer width: 0.50

■ TO-220-3L PACKAGE OUTLINE DIMENSIONS



■ TO-263-3L PACKAGE OUTLINE DIMENSIONS

