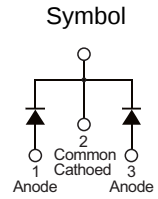


PRODUCT CHARACTERISTICS

VR(@IC=0.5mA)	100V
VF(Typ@IF=5A)	0.53V
IR(@VR=100V)	50uA
ID	10A

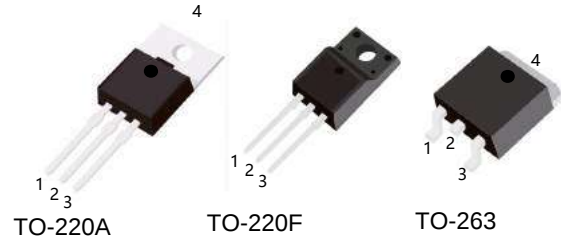


MECHANICAL CHARACTERISTICS

- * Case: epoxy,molded
- * Finish:all external surfaces corrosion resistant and terminal
- * Leads are readily solderable
- * Leads 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 package are available



ORDER INFORMATION

Order codes		Package	Packing
Halogen-free	Halogen		
N/A	MBR10100UA	TO-220	50pieces/Tube
N/A	MBR10100UF	TO-220F	50pieces/Tube
N/A	MBR10100UE	TO-263	800pieces/Reel

MAXIMUM RATINGS (Each diode leg)

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V _{RRM}	100	V
Average rectified output current	I _O	10	A
		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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Peak repetitive reverse voltage	B _V	I _C =0.5mA, T _J =25°C	100	-	-	V
Forward voltage drop	V _F	I _F =5A, T _J =25°C	-	0.53	0.57	V
Leakage current	I _R	V _R =100V, T _J =25°C	-	-	0.05	mA
		V _R =100V, T _J =125°C	-	-	6	

■ TYPICAL CHARACTERISTICS

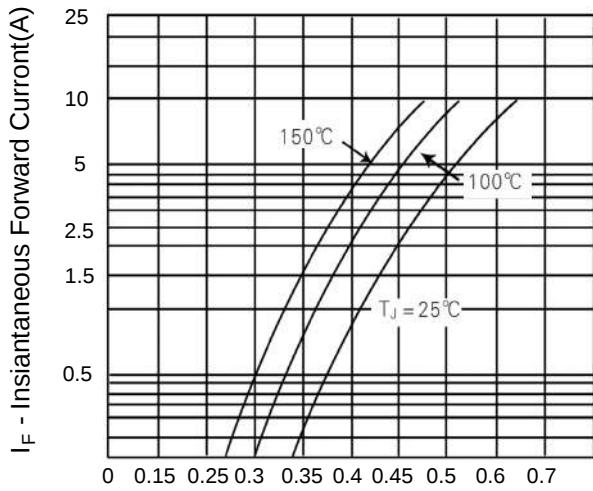


Figure 1. Typical Forward Voltage Per Diode

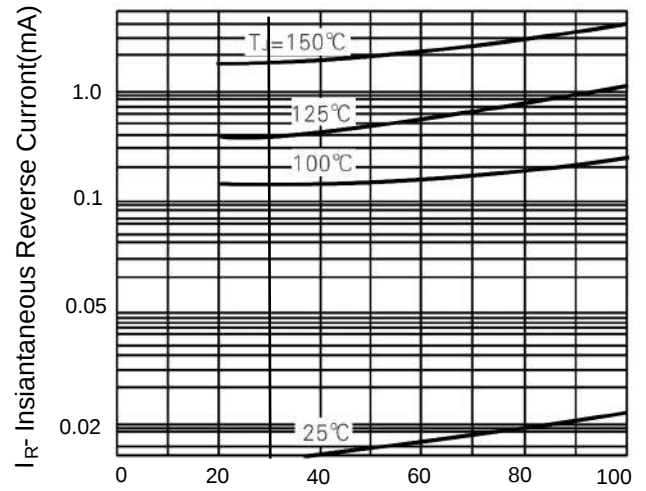


Figure 2. Typical Reverse Current Per Diode

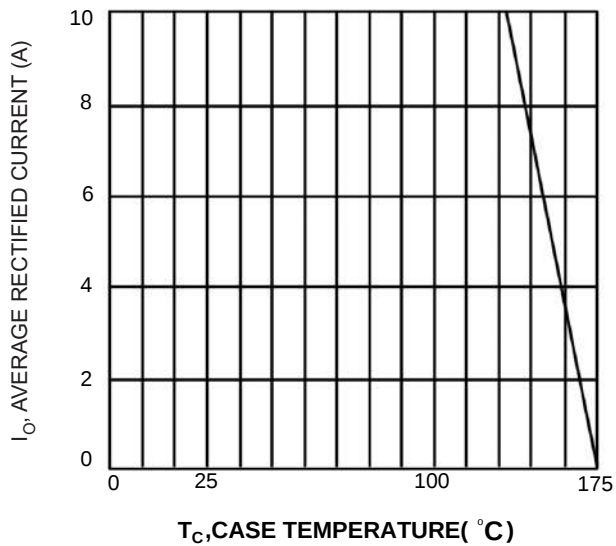


Fig.3 Forward Current Derating Curve

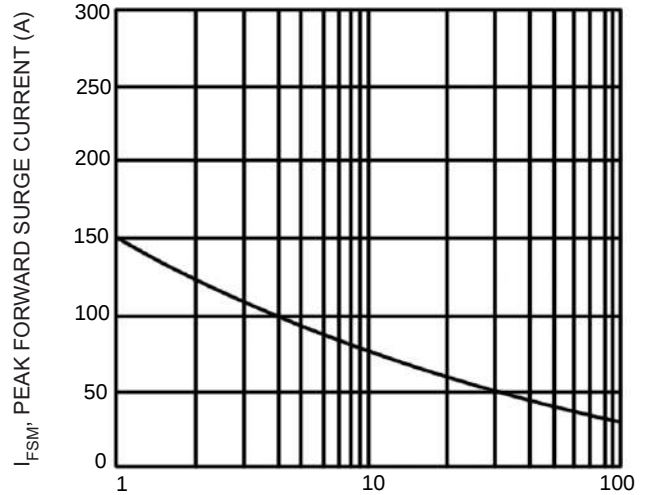


Fig.4 Max Non-Repetitive Surge Current

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

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
- Four smaller circular features: $3 \times \phi 1.50$
- Top flange thickness: 1.80
- Bottom flange thickness: 1.80 ± 0.1
- Bottom flange width: 6.10 ± 0.1
- Bottom flange height: 4.90
- Bottom flange radius: $R0.5$
- Bottom flange width (inner): 6.47
- Bottom flange width (outer): 12.93 ± 0.3
- Bottom flange height (inner): 1.38 ± 0.1
- Bottom flange height (outer): 0.80
- Bottom flange width (inner): 2.54
- Bottom flange width (outer): 2.54
- Bottom flange height (inner): 9.75
- Bottom flange height (outer): 3.18

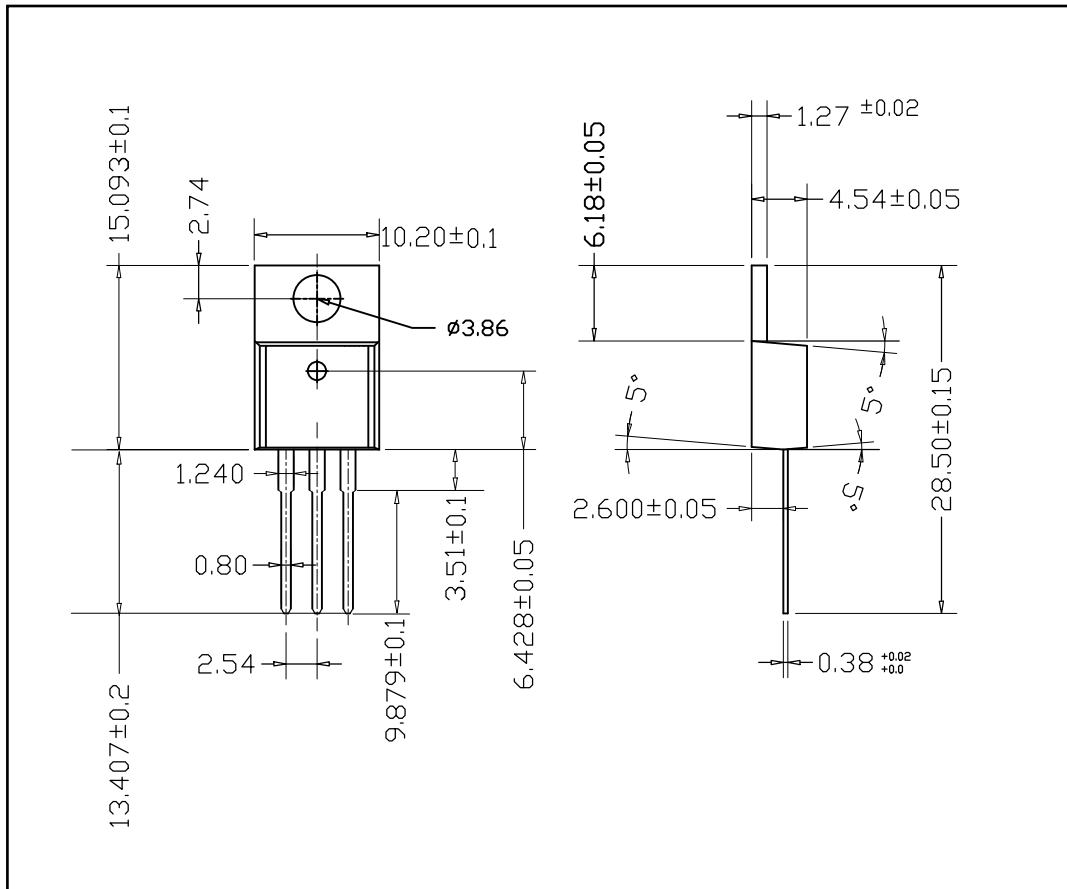
Top View Dimensions:

- 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
- Four smaller circular features: $3 \times \phi 1.50$
- Top flange thickness: 1.80
- Bottom flange thickness: 1.80 ± 0.1
- Bottom flange width: 6.10 ± 0.1
- Bottom flange height: 4.90
- Bottom flange radius: $R0.5$
- Bottom flange width (inner): 6.47
- Bottom flange width (outer): 12.93 ± 0.3
- Bottom flange height (inner): 1.38 ± 0.1
- Bottom flange height (outer): 0.80
- Bottom flange width (inner): 2.54
- Bottom flange width (outer): 2.54
- Bottom flange height (inner): 9.75
- Bottom flange height (outer): 3.18

Side View Dimensions:

- Overall width: 4.70 ± 0.1
- Overall height: 6.68 ± 0.1
- Top flange width: 2.54 ± 0.15
- Top flange height: 3.30
- Central circular feature diameter: 8.0
- Four smaller circular features: $3 \times \phi 1.50$
- Top flange thickness: 1.80
- Bottom flange thickness: 1.80 ± 0.1
- Bottom flange width: 6.10 ± 0.1
- Bottom flange height: 4.90
- Bottom flange radius: $R0.5$
- Bottom flange width (inner): 6.47
- Bottom flange width (outer): 12.93 ± 0.3
- Bottom flange height (inner): 1.38 ± 0.1
- Bottom flange height (outer): 0.80
- Bottom flange width (inner): 2.54
- Bottom flange width (outer): 2.54
- Bottom flange height (inner): 9.75
- Bottom flange height (outer): 3.18

■ TO-220 PACKAGE OUTLINE DIMENSIONS



■ TO-263 PACKAGE OUTLINE DIMENSIONS

