

■ PRODUCT CHARACTERISTICS

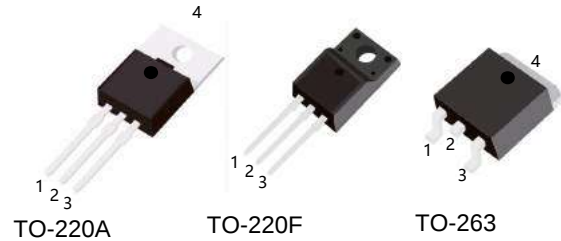
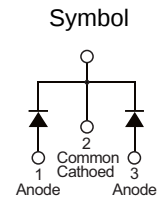
VR(@IC=0.5mA)	300V
VF(Typ@IF=10A)	0.87V
IR(@VR=300V)	20μA
ID	20A

■ 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	MBR20300A	TO-220	50pieces/Tube
N/A	MBR20300F	TO-220F	50pieces/Tube
N/A	MBR20300E	TO-263	800pieces/Reel

■ MAXIMUM RATINGS (Each diode leg)

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	300	V
Average rectified output current	Io	20	A
		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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Peak repetitive reverse voltage	B_V	$I_C=0.5mA, T_J=25^{\circ}C$	300	-	-	V
Forward voltage drop	V_F	$I_F=10AT_J=25^{\circ}C$	-	0.87	0.91	V
Leakage current	I_R	$V_R=300V, T_J=25^{\circ}C$	-	-	0.07	mA
		$V_R=300V, T_J=125^{\circ}C$	-	-	6	

TYPICAL CHARACTERISTICS

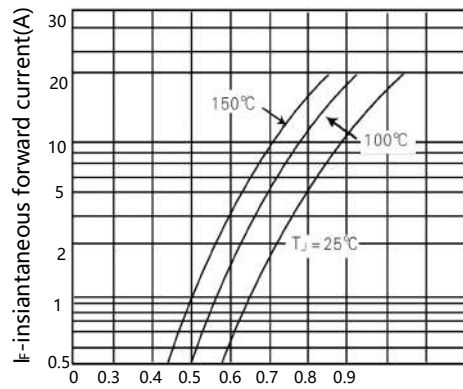


Figure 2 typical forward voltage per diode

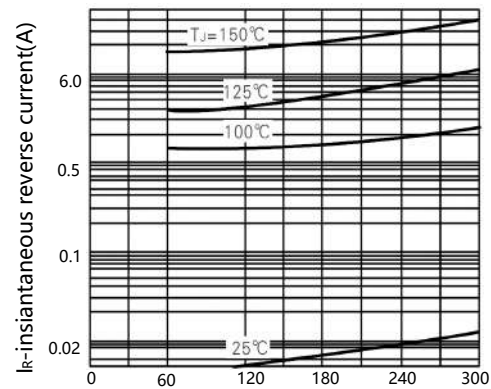


Figure 2 typical reverse current per diode

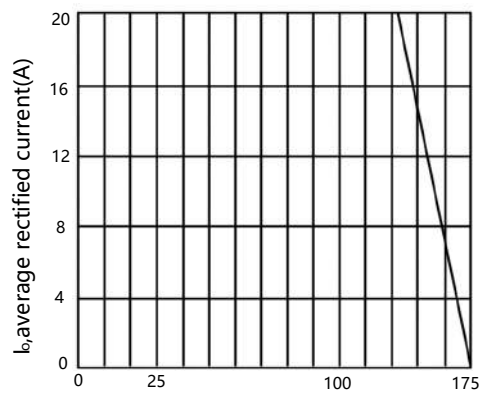


Figure 3 forward current derating curve

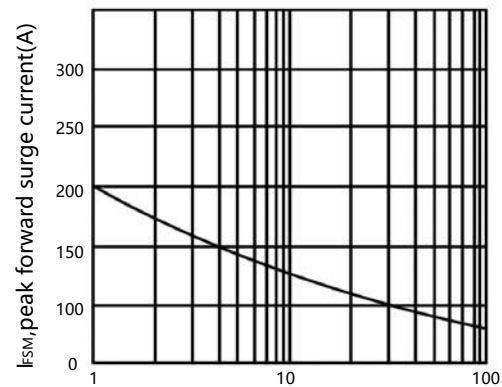
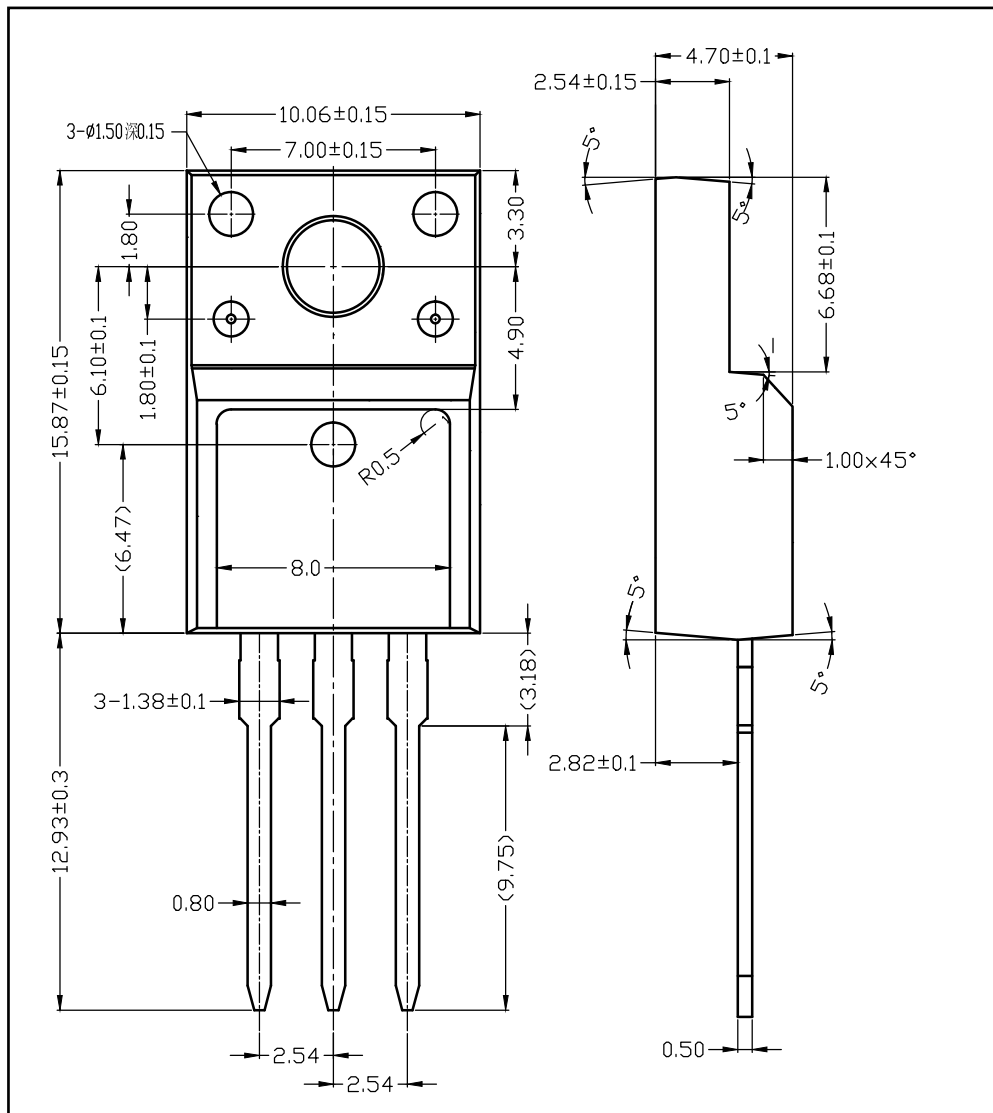
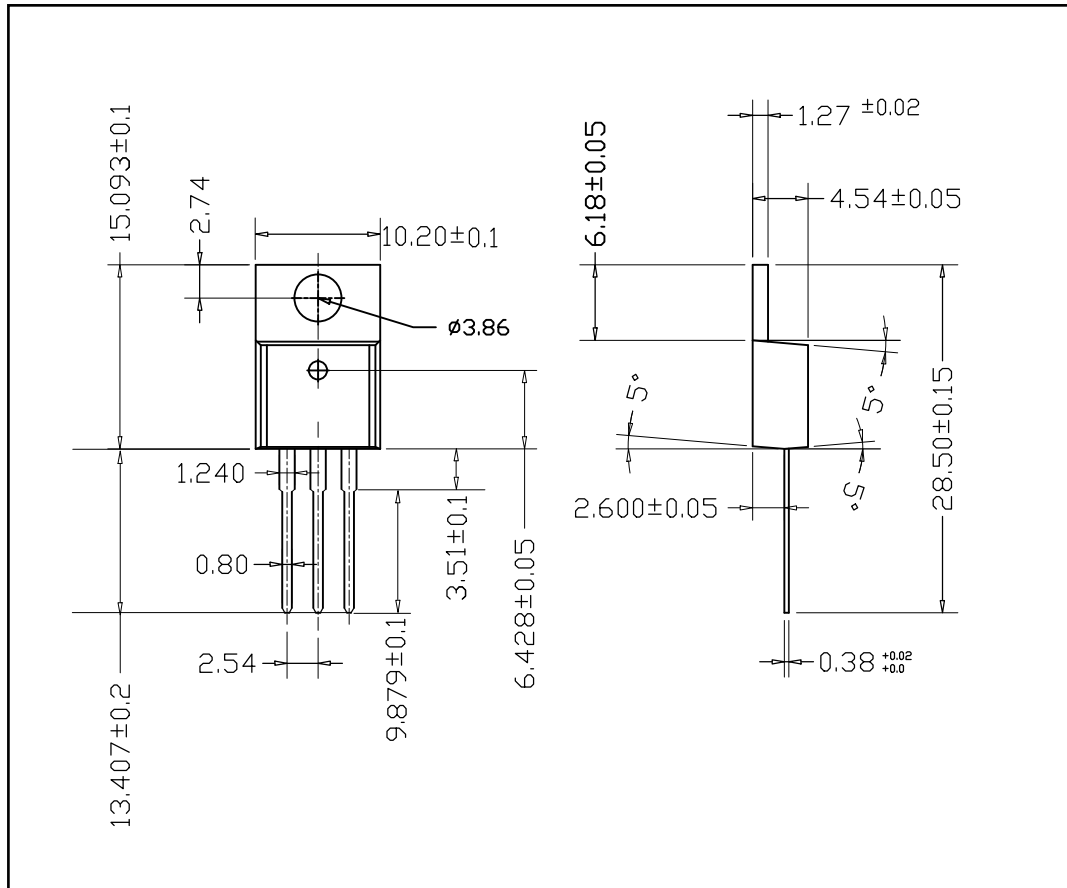


Figure 4 max non-repetitive surge current

■ TO-220F PACKAGE OUTLINE DIMENSIONS



■ TO-220 PACKAGE OUTLINE DIMENSIONS



■ TO-263 PACKAGE OUTLINE DIMENSIONS

