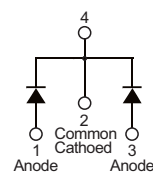


■ PRODUCT CHARACTERISTICS

$V_R(@I_C=0.5mA)$	100V
$V_F(@I_F=15A)$	0.83V
$I_R(@V_R=100V)$	50 μ A
I_D	30A

Symbol

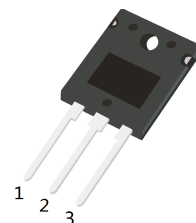


■ MECHANICAL CHARACTERISTICS

- * 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-247S

■ ORDER INFORMATION

Order codes		Package	Packing
Halogen-Free	Halogen		
N/A	MBR30100W	TO-247S	30 pieces/Tube

■ MAIMUM RATINGS(Each diode leg)

Parameter		Symbol	Value	Unit
Peak Repetitive Reverse Voltage		V_{RRM}	100	V
Average Rectified Output Current	(Total)	I_O	30	A
	(per Leg)		15	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Reate Load		I_{FSM}	300	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	$I_C=0.5mA$ $T_J=25^\circ C$	—	108	—	V
Forward Voltage Drop	V_F	$I_F=15A$ $T_J=25^\circ C$	—	0.82	0.85	V
Leakage Current	I_R	$V_R=100V$, $T_J=25^\circ C$	—	—	0.05	mA
		$V_R=100V$, $T_J=125^\circ C$	—	—	6	

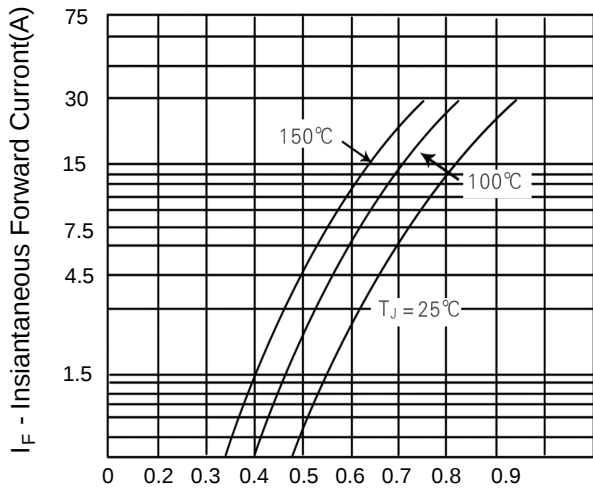


Figure 1. Typical Forward Voltage Per Diode

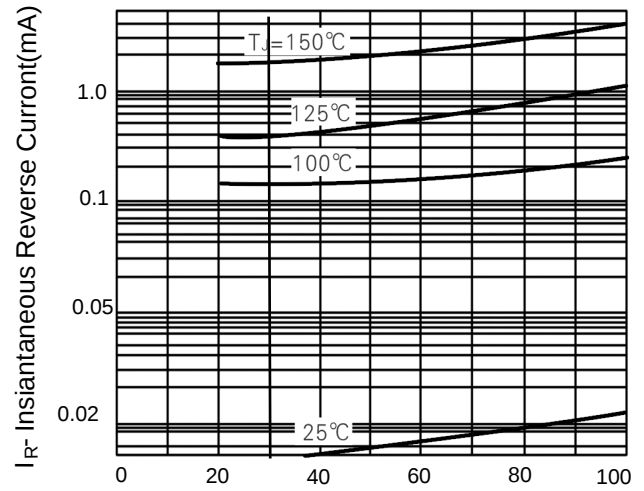


Figure 2. Typical Reverse Current Per Diode

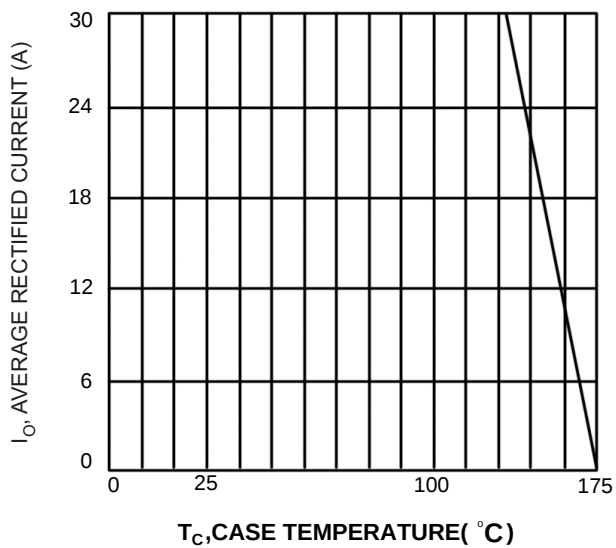


Fig.3 Forward Current Derating Curve

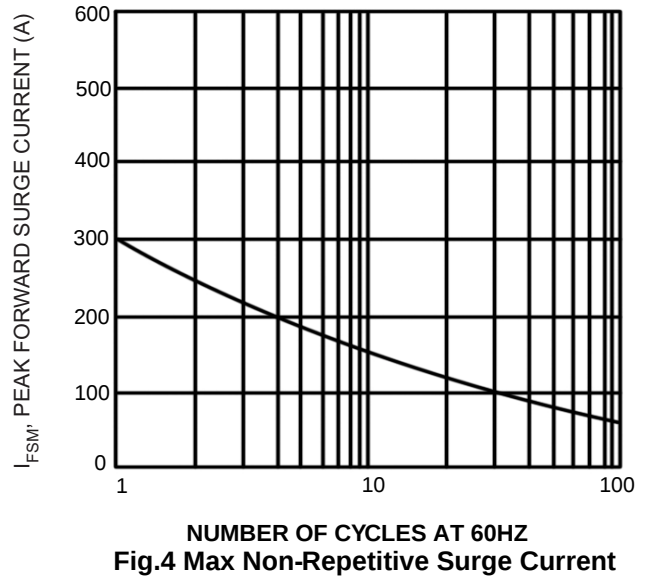


Fig.4 Max Non-Repetitive Surge Current

Technical drawing of a mechanical part, showing front and side views with dimensions.

Front View Dimensions:

- Overall width: 15.60 ± 0.15
- Overall height: 20.000 ± 0.2
- Top flange width: 2.40 ± 0.2
- Top flange thickness: 5.08 ± 0.15
- Top flange radius: $R2.54$
- Top flange hole diameter: $\phi 10.66$
- Top flange hole position: 10.00
- Top flange hole offset: 8.8 ± 0.2
- Top flange hole offset: 5.50 ± 0.2
- Top flange hole offset: 5.50
- Top flange hole offset: 18.000 ± 0.2
- Top flange hole offset: 6.000
- Top flange hole offset: 9.750
- Top flange hole offset: 3.87 ± 0.2
- Top flange hole offset: 14.400 ± 0.25
- Top flange hole offset: 5.450
- Top flange hole offset: 5.450

Side View Dimensions:

- Overall width: 4.95 ± 0.15
- Overall height: 1.20 ± 0.1
- Top flange thickness: 2.350 ± 0.15
- Top flange radius: $R2.54$
- Top flange hole diameter: $\phi 10.66$
- Top flange hole position: 10.00
- Top flange hole offset: 8.8 ± 0.2
- Top flange hole offset: 5.50 ± 0.2
- Top flange hole offset: 5.50
- Top flange hole offset: 18.000 ± 0.2
- Top flange hole offset: 6.000
- Top flange hole offset: 9.750
- Top flange hole offset: 3.87 ± 0.2
- Top flange hole offset: 14.400 ± 0.25
- Top flange hole offset: 5.450
- Top flange hole offset: 5.450