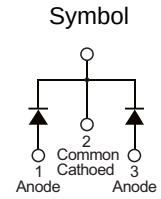


PRODUCT CHARACTERISTICS

VR(@IC=0.5mA)	100V
VF(Typ@IF=15A)	0.6V
IR(@VR=100V)	50uA
ID	30A

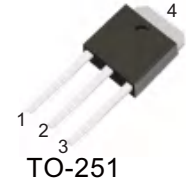
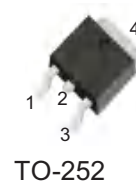


MECHANICAL CHARACTERISTICS

- * 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	MOT30100UC	TO-251	70pieces/Tube
N/A	MOT30100UD	TO-252	2500pieces/Reel

MAXIMUM RATINGS (Each diode leg)

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	100	V
Average rectified output current	Total Per leg	30	A
		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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Peak repetitive reverse voltage	B_V	$I_C=0.5mA, T_J=25^{\circ}C$	100	-	-	V
Forward voltage drop	V_F	$I_F=15A, T_J=25^{\circ}C$	-	0.6	0.65	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	

■ TYPICAL CHARACTERISTICS

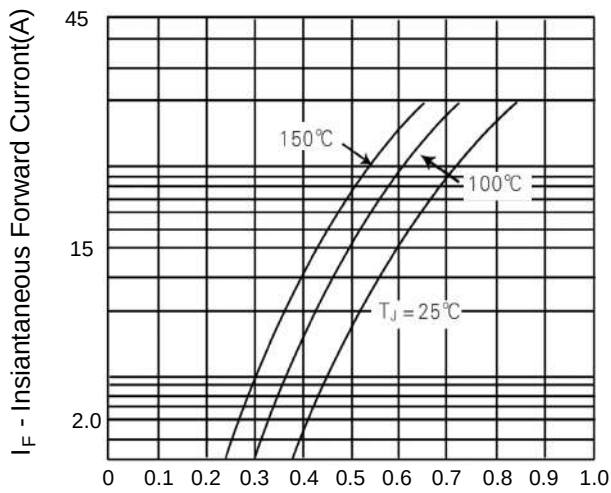


Figure 1. Typical Forward Voltage Per Diode

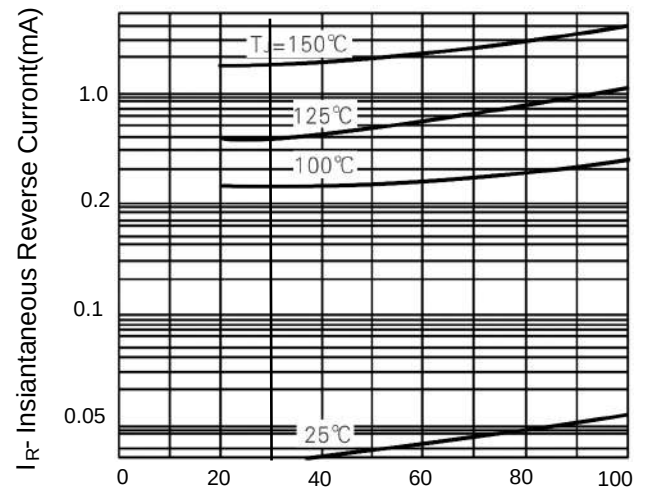
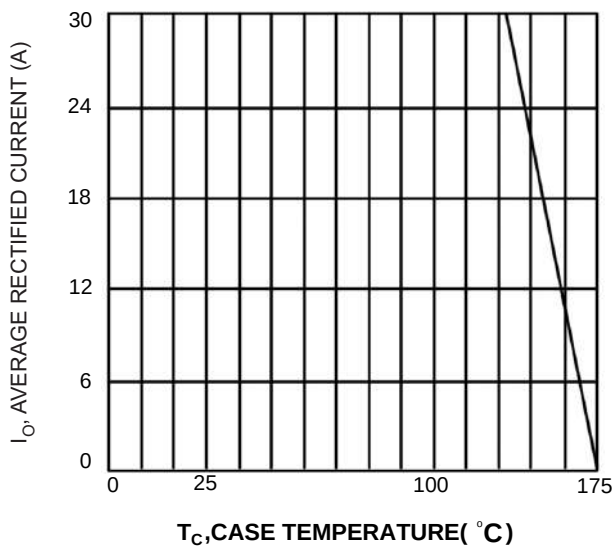
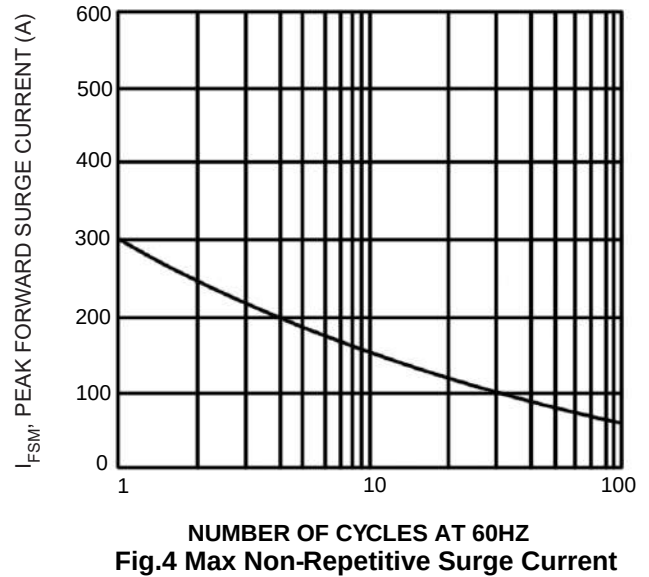


Figure 2. Typical Reverse Current Per Diode



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



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

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

Front View (Left):

- Overall height: 11.2 ± 0.2
- Top flange thickness: $1.062^{+0.35}_{-0.1}$
- Top flange width: 2.3 ± 0.1
- Top flange offset: 0.5
- Top flange chamfer: 7.0°
- Bottom flange thickness: 4.0 ± 0.3
- Bottom flange offset: $0.5^{+0.1}_0$

Top View (Right):

- Overall width: 5.33 ± 0.20
- Overall depth: 6.1 ± 0.1
- Top flange thickness: 1.0 ± 0.15
- Top flange offset: $0.05^{+0.15}_{-0.03}$
- Top flange chamfer: $R1.438$
- Top flange hole diameter: $\phi 1.2^{+0.10}_{-0.05}$
- Top flange hole offset: 1.78 ± 0.2
- Top flange hole diameter: $\phi 1.2^{+0.10}_{-0.05}$
- Top flange hole offset: 6.6
- Top flange hole diameter: 0.840 ± 0.1
- Top flange hole offset: 4.0 ± 0.2
- Top flange hole diameter: 2.286
- Top flange hole offset: $0.76^{+0.10}_{-0.02}$

■ TO-252 PACKAGE OUTLINE DIMENSIONS

