



Diode Module

Features

- A package of series of two diodes
- Heat transfer through alumina ceramic and metal substrate
- Welding by vacuum welding technology, which provide high reliability

Product Summary

Parameter	Value	Unit
V_{RRM}	1800	V
$I_{F(AV)}(@ T_C = 100^\circ\text{C})$	120	A
$I_{FSM}(@ t_p = 10\text{ms})$	3360	A
$V_F(\text{Max})$	1.60	V

Applications

- AC converter
- Inverter
- DC motor

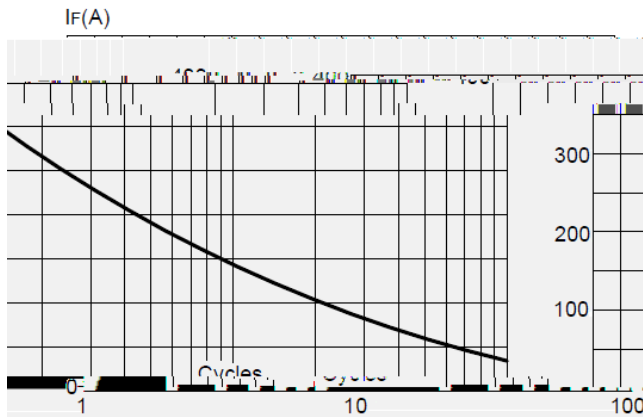
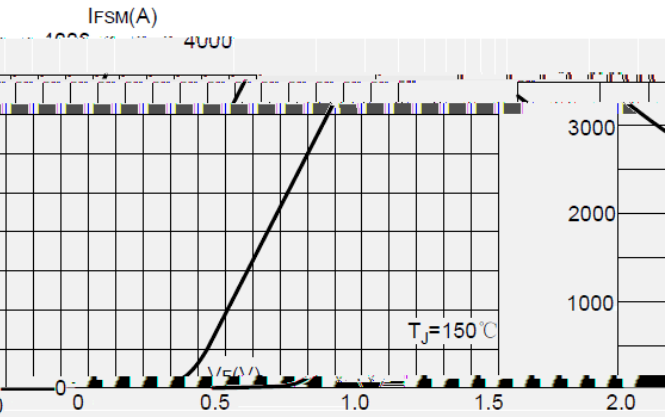
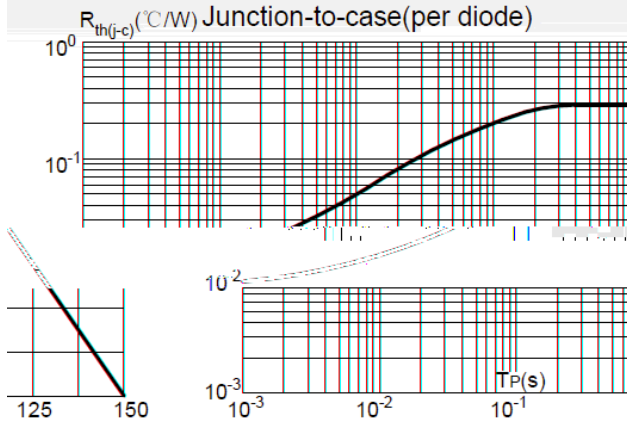
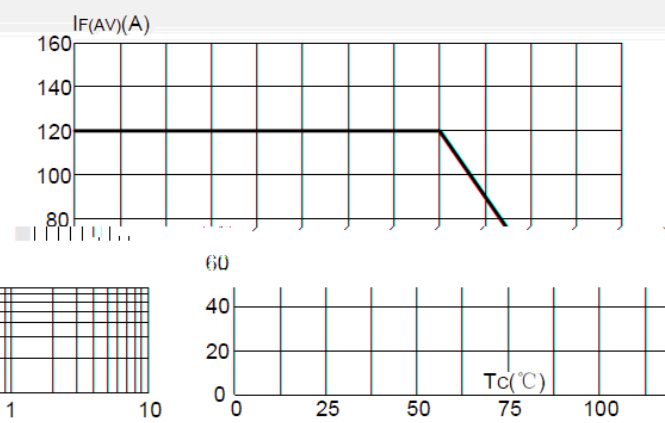


Absolute Maximum Ratings (@ $T_C = 25^\circ\text{C}$ unless otherwise specified)

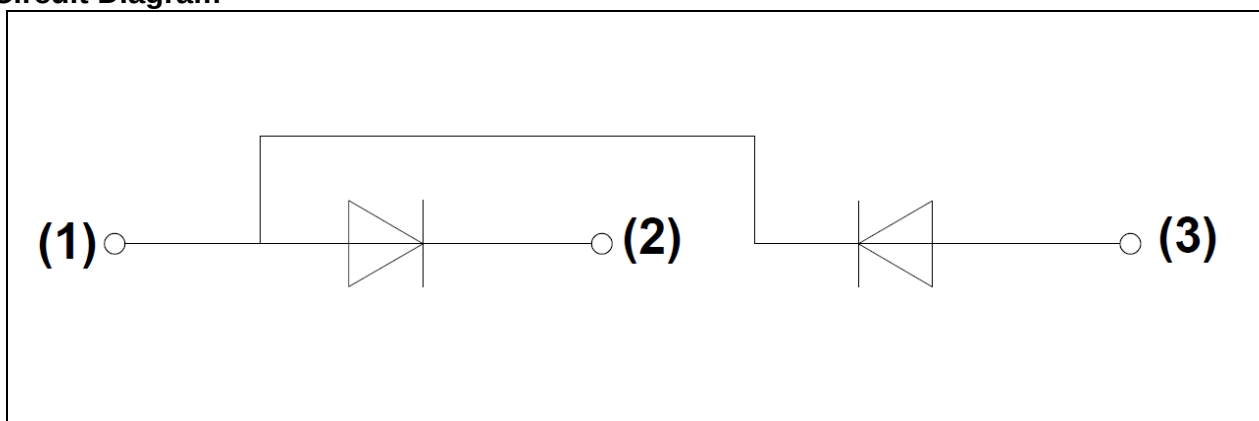
Parameter	Conditions	Symbol	Values	Unit
Repetitive peak reverse voltage	$T_{vj} = 25^\circ\text{C}$	V_{RRM}	1800	V
Non-repetitive peak reverse voltage	$T_{vj} = 25^\circ\text{C}$	V_{RSM}	1900	V
Average forward current	$T_C = 100^\circ\text{C}$	$I_{F(AV)}$	120	A
Forward surge current	1/2 cycle, Sine wave, 50Hz	I_{FSM}	3360	A
I^2t value for fusing	$T_{vj} = 25$	I^2t	56400	A^2s
RMS isolation voltage	A.C 50Hz(1s/1min)	V_{ISO}	3600/3000	V
Junction temperature range		T_J	-40 ~ +150	
Storage temperature range		T_{stg}	-40 ~ +125	



Typical Electrical & Thermal Characteristics

FIG.1: Forward characteristics(per diode)

FIG.2: Peak on-state surge current

FIG.4: Maximum transient thermal impedance

FIG.3: Forward current vs. case temperature


Circuit Diagram



Technical drawing of the 1000mm x 1000mm x 100mm base plate. The drawing shows a top view and a side view. The top view shows a rectangular plate with a central square cutout and four circular holes. The side view shows the plate's profile with a central square cutout and four circular holes. Dimensions are given in mm.

Dimensions shown in the drawing:

- Top view:
 - Overall width: $69^{+0.3}_{-0.5}$
 - Overall height: $18.9^{+0.3}_{-0.5}$
 - Central square cutout width: 93 ± 0.5
 - Central square cutout height: 21 ± 0.5
 - Distance from center to hole center: 20 ± 0.5
 - Distance from center to hole center: 20 ± 0.5
 - Overall width: 80 ± 0.2
- Side view:
 - Overall height: $30^{+0.8}_{-0}$
 - Distance from top to hole center: 8.2 ± 0.5
 - Distance from bottom to hole center: 16.6 ± 0.5
 - Hole diameter: $2 \times \phi 6.4 \pm 0.3$
 - Minimum distance from edge to hole center: $\text{MIN} 8.5$

Unit of measurement: mm

