

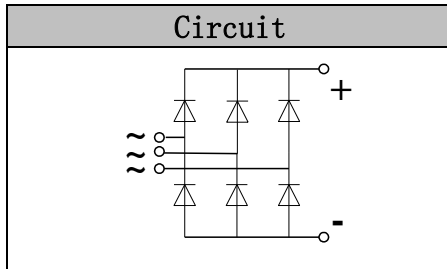


Glass Passivated Three Phase Rectifier Bridge

VRRM 1800V
ID 35A

Applications

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Input rectifiers for variable frequency drives
- Blocking voltage:1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip



Module Type

TYPE	VRRM	VRSM
MD35S08N0	800V	900V
MD35S12N0	1200V	1300V
MD35S16N0	1600V	1700V
MD35S18N0	1800V	2000V

Maximum Ratings

Symbol	Conditions	Values	Units
I_D	Three phase, full wave $T_c=100^\circ\text{C}$	35	A
I_{FSM}	$t=10\text{mS}$ $T_a=25^\circ\text{C}$	480	A
i^2t	$t=10\text{mS}$ $T_a=25^\circ\text{C}$	1150	A^2s
V_{isol}	a.c.50HZ;r.m.s.;1min	2500	V
T_{vj}		-40 to +150	$^\circ\text{C}$
T_{stg}		-40 to +125	$^\circ\text{C}$
M_t	To terminals(M4)	$2\pm 15\%$	Nm
M_s	To heatsink(M4)	$2\pm 15\%$	Nm
Weight	Module (Approximately)	11.7	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per Diode	0.82	$^\circ\text{C}/\text{W}$
$R_{th(j-c)}$	Per Module	0.14	$^\circ\text{C}/\text{W}$

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{FM}	$T=25^\circ\text{C}$ $I_F=35\text{A}$	—	1.5	1.8	V
I_{RD}	$T_{vj}=25^\circ\text{C}$ $V_{RD}=V_{RRM}$ $T_{vj}=150^\circ\text{C}$ $V_{RD}=V_{RRM}$	—	—	0.3 5	mA mA

Performance Curves

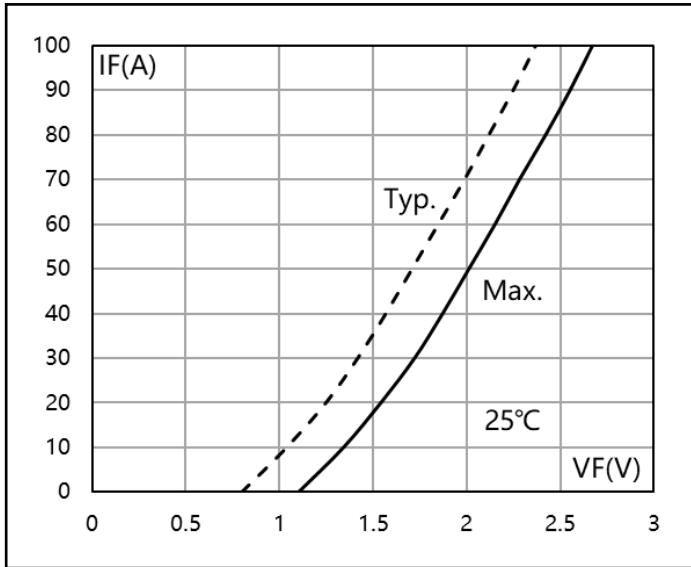


Fig1. Forward Characteristics

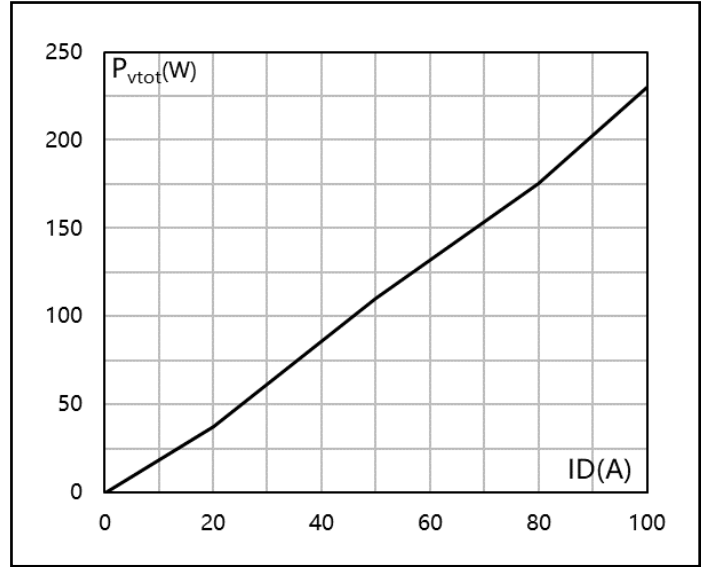


Fig2. Power dissipation

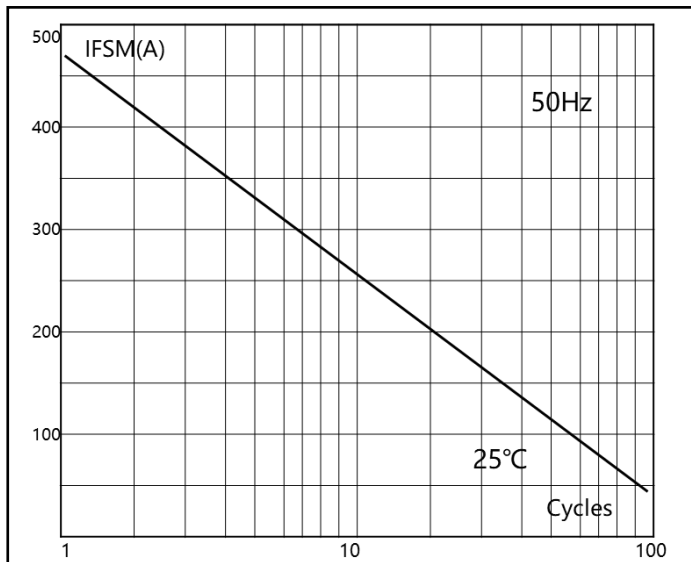


Fig3. Max Non-Repetitive Forward Surge Current

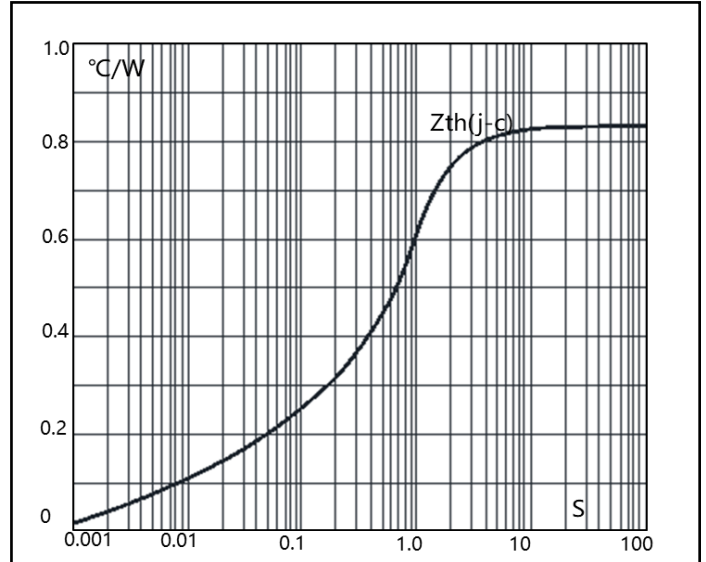


Fig4. Transient thermal impedance

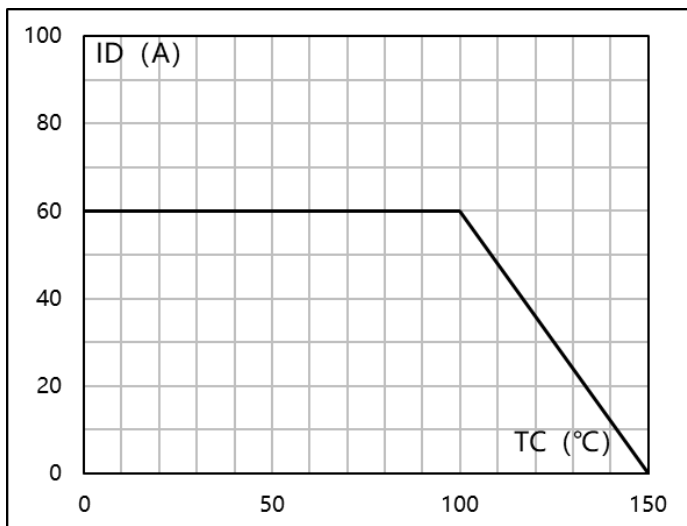
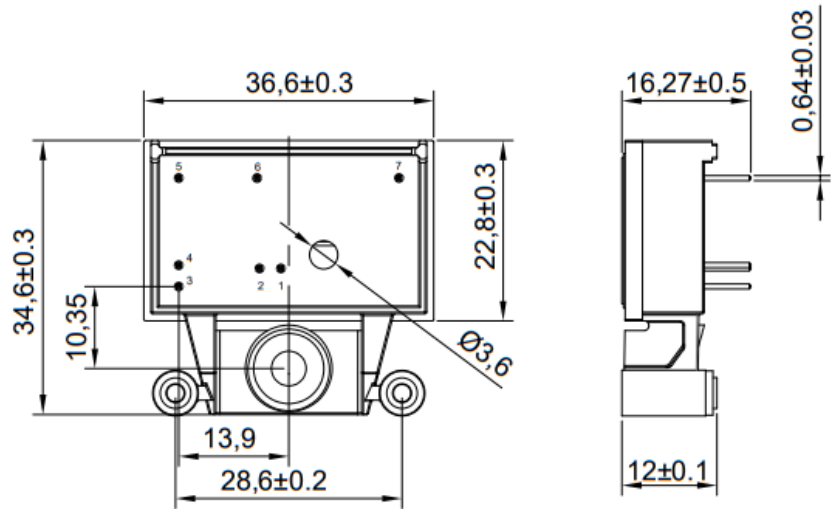


Fig5. Forward Current Derating Curve

Package Outline Information

CASE: N0

Pin	X	Y
1	12.9	12.3
2	10.2	2.3
3	0	0
4	0	2.7
5	0	13.7
6	9.9	13.7
7	27.8	13.7



Dimensions in mm