

Glass Passivated Rectifier Diode Modules



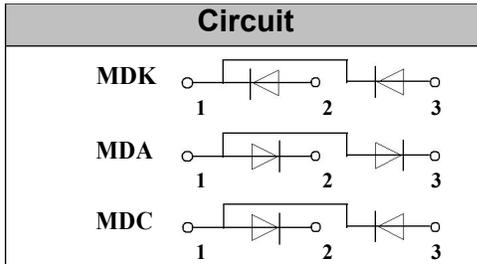
VRRM 800 to 1800V
IFAV 100 Amp

Applications

- ☑ Non-controllable rectifiers for AC/AC converters
- ☑ Line rectifiers for transistorized AC motor controllers
- ☑ Field supply for DC motors

Features

- ☑ Blocking voltage: 800 to 1800V
- ☑ Heat transfer through aluminum oxide ceramic isolated metal baseplate
- ☑ Glass passivated chip



Module Type

TYPE			VRRM	VRSM
MDK110-08	MDA110-08	MDC110-08	800V	900V
MDK110-12	MDA110-12	MDC110-12	1200V	1300V
MDK110-16	MDA110-16	MDC110-16	1600V	1700V
MDK110-18	MDA110-18	MDC110-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Tc=100°C	110	A
IFSM	t=10mS Tvj =45°C	2500	A
i ² t	t=10mS Tvj =45°C	31250	A ² s
V _{isol}	a.c.50Hz;r.m.s.;1min	3000	V
Tvj		-40 to 150	°C
T _{stg}		-40 to 125	°C
Mt	To terminals(M5)	2 . 5-4	Nm
Ms	To heatsink(M5)	2 . 5-4	Nm
Weight	Module	110	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.35	°C/W
Rth(c-s)	Module	0.1	°C/W

Electrical Characteristics

Symbol	Conditions	Values	Units
VFM	T=25°C IFM =300A	1.35	V
IRD	Tvj=TvjM VRD=VRRM	≤ 5	mA

Performance Curves

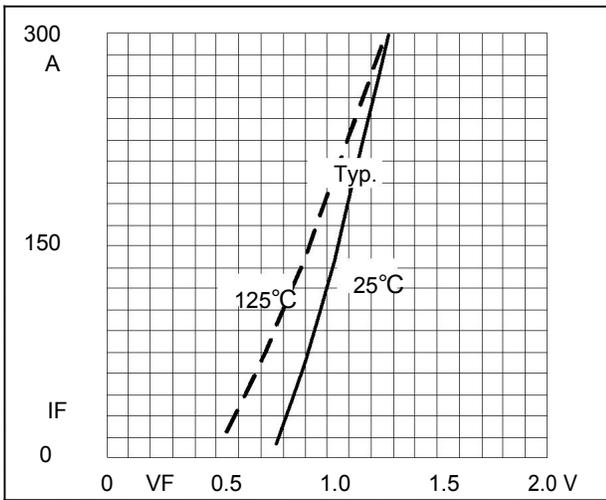


Fig1. Forward Characteristics

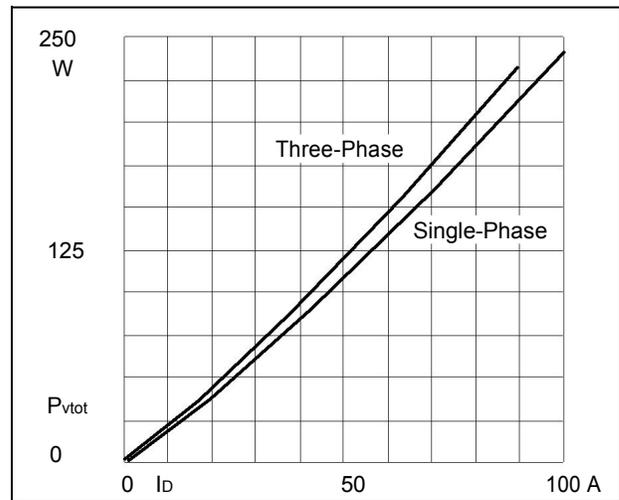


Fig2. Power dissipation

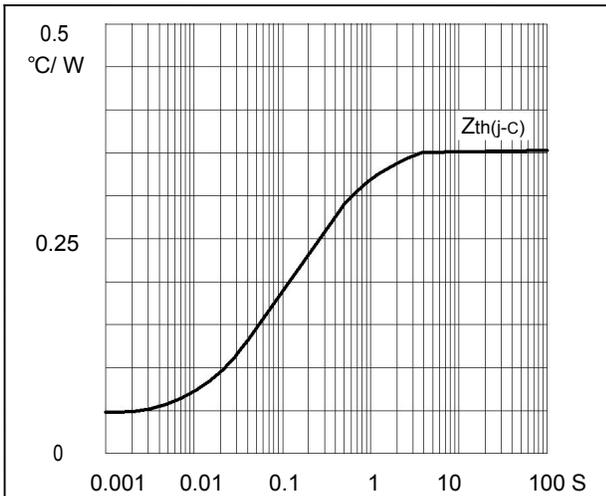


Fig3. Transient thermal impedance

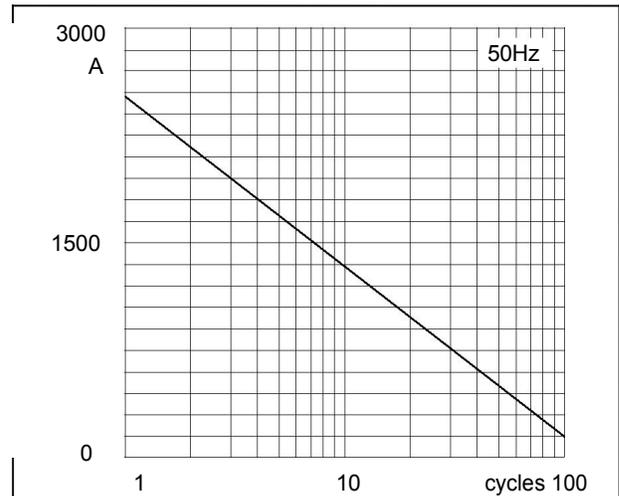


Fig4. Max Non-Repetitive Forward Surge Current

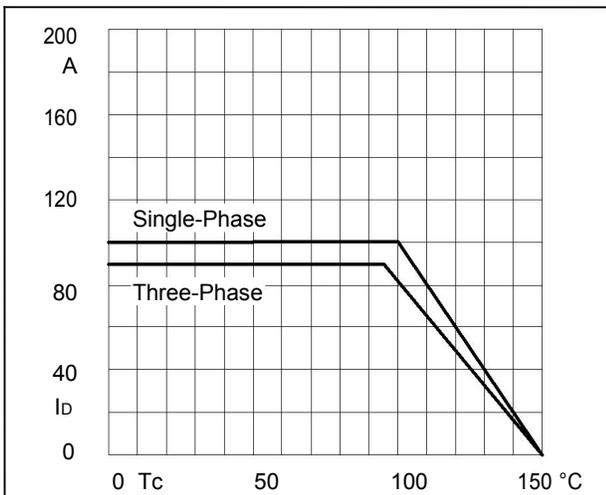
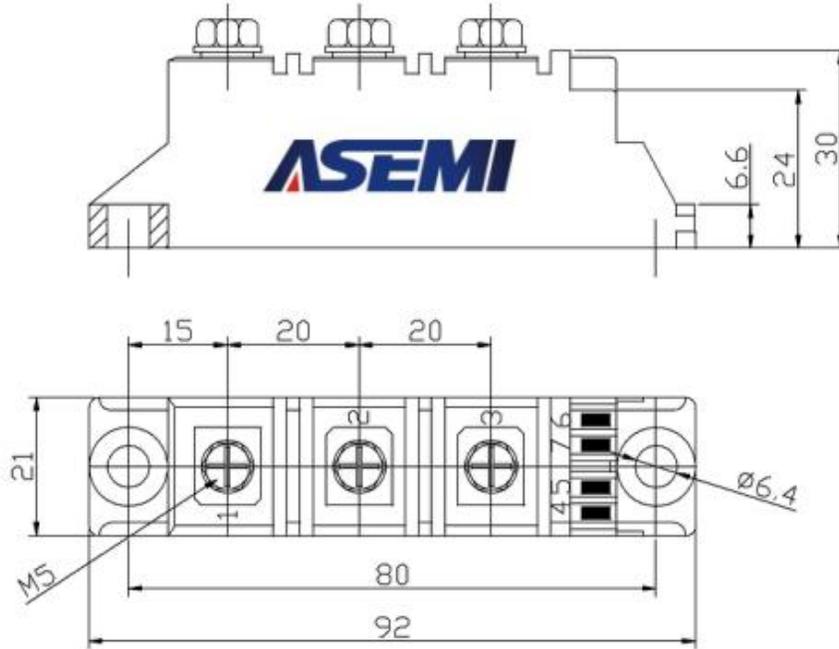


Fig5. Forward Current Derating Curve

Package Outline Information

CASE-D1



Dimensions in mm