



Glass Passivated Rectifier Diode Modules

VRRM 800 to 1800V

IFAV 110 Amp

Applications

Non-controllable rectifiers for

AC/AC converters

☑ Line rectifiers for transistorized AC motor controllers

☑ Field supply for DC motors

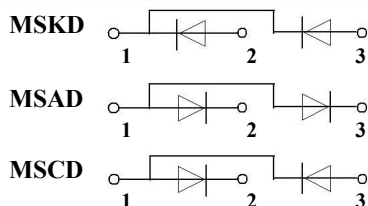
Features

☑ Blocking voltage: 800 to 1800V

☑ Heat transfer through aluminum oxide ceramic isolated metal baseplate

☑ Glass passivated chip

Circuit



Module Type

TYPE			VRRM	VRSM
MSKD110-08	MSAD110-08	MSCD110-08	800V	900V
MSKD110-12	MSAD110-12	MSCD110-12	1200V	1300V
MSKD110-16	MSAD110-16	MSCD110-16	1600V	1700V
MSKD110-18	MSAD110-18	MSCD110-18	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
Visol	a.c.50Hz;r.m.s.;1min	3000	V
Tvj		-40 to 150	°C
Tstg		-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

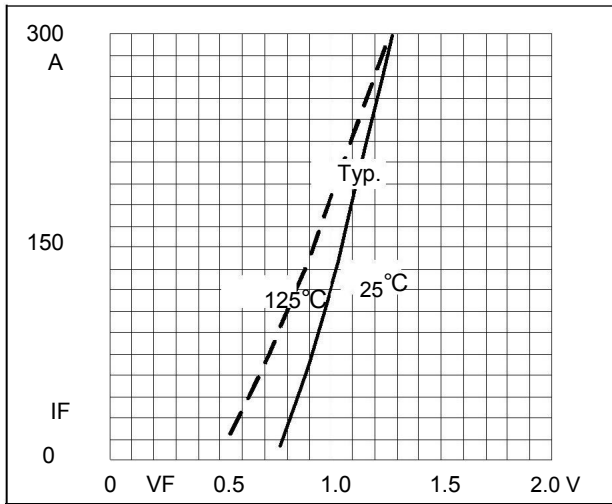


Fig1. Forward Characteristics

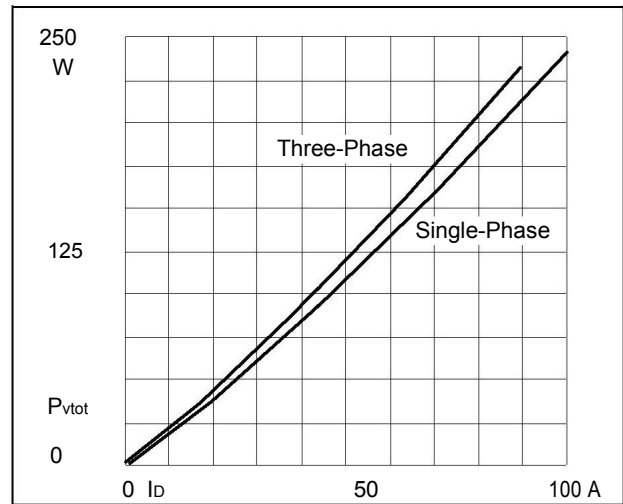


Fig2. Power dissipation

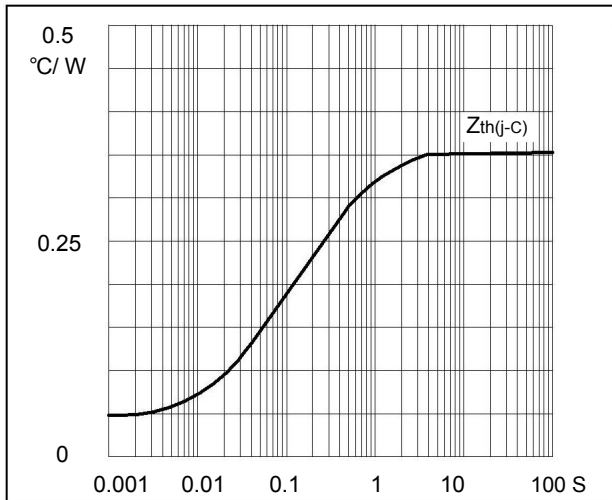


Fig3. Transient thermal impedance

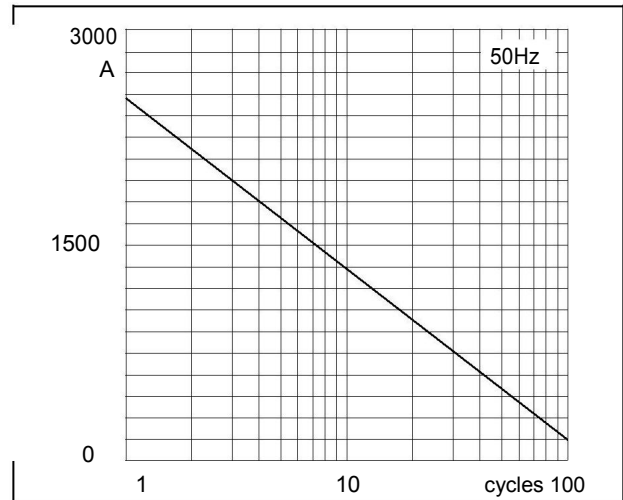


Fig4. Max Non-Repetitive Forward Surge Current

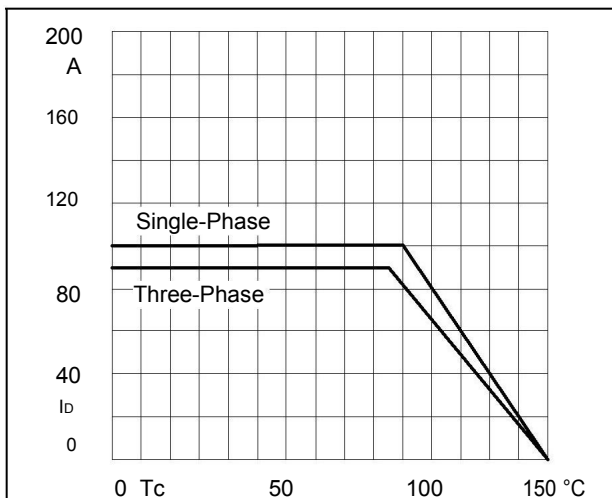
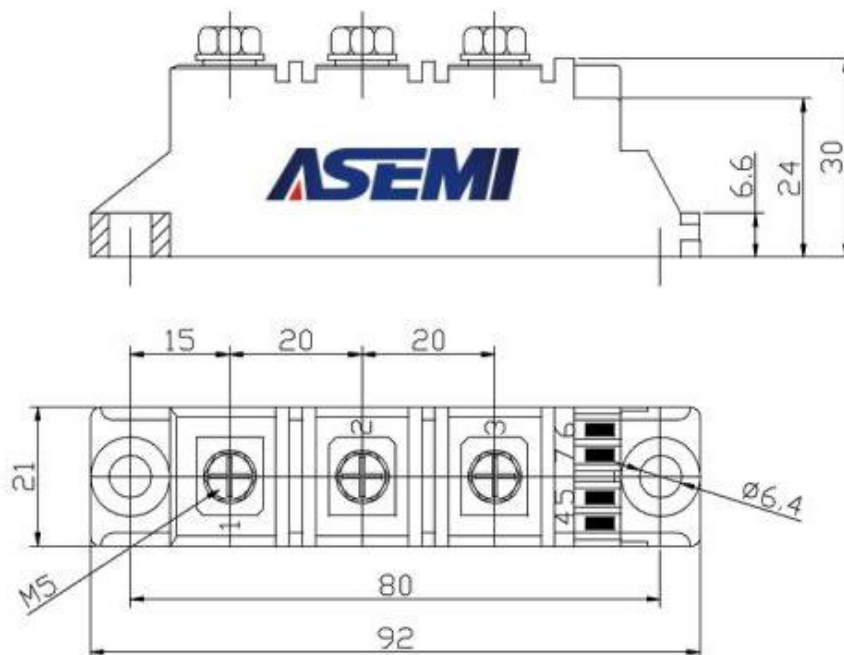


Fig5. Forward Current Derating Curve

Package Outline Information

CASE-D1



Dimensions in mm