Glass Passivated Rectifier Diode Modules

V_{RRM} 800 to 1800V
I_{FAV} 165 Amp

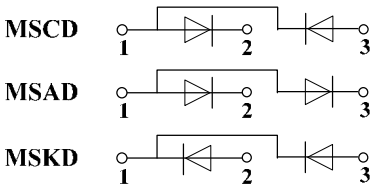
Applications

- 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			V_{RRM}	V_{RSM}
MSKD165-08	MSAD165-08	MSCD165-08	800V	900V
MSKD165-12	MSAD165-12	MSCD165-12	1200V	1300V
MSKD165-16	MSAD165-16	MSCD165-16	1600V	1700V
MSKD165-18	MSAD165-18	MSCD165-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I_{FAV}	Tc=100℃	165	A
I_{FSM}	t=10mS Tvj =45℃	6000	A
i^2t	t=10mS Tvj =45℃	180000	A^2s
V_{isol}	a.c.50Hz;r.m.s.;1min	3000	V
T_{vj}		-40 to 150	℃
T_{stg}		-40 to 125	℃
Mt	To terminals(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module	160	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.18	℃/W
$R_{th(c-s)}$	Module	0.05	℃/W

Electrical Characteristics

Symbol	Conditions	Values	Units
V_{FM}	T=25℃ I_{FM} =300A	1.4	V
I_{RD}	T_{vj}=T_{vjM} V_{RD}=V_{RRM}	≤9	mA

Performance Curves

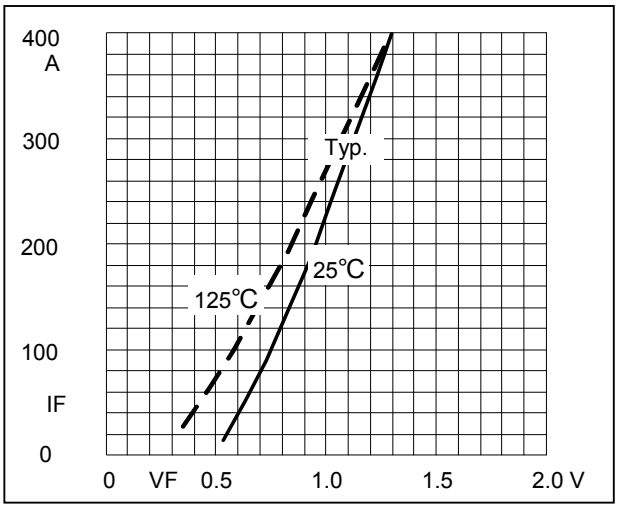


Fig1. Forward Characteristics

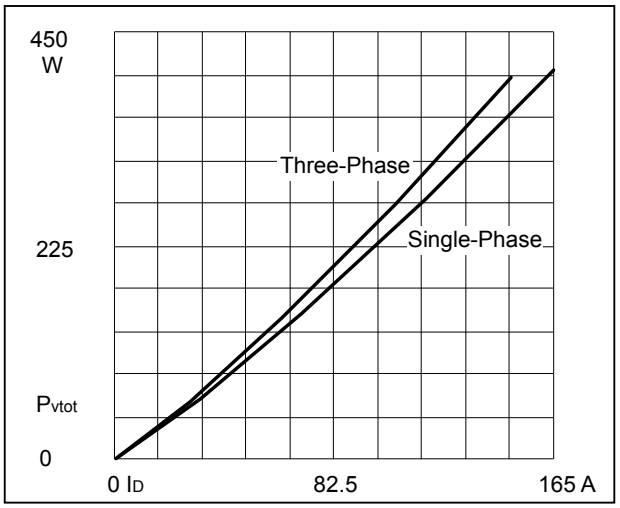


Fig2. Power dissipation

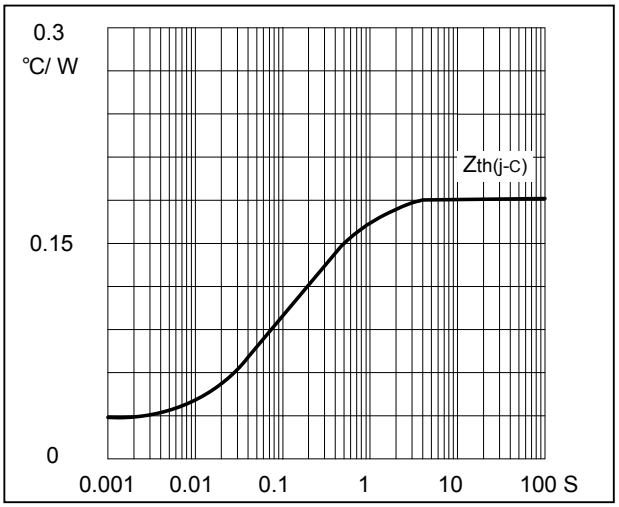


Fig3. Transient thermal impedance

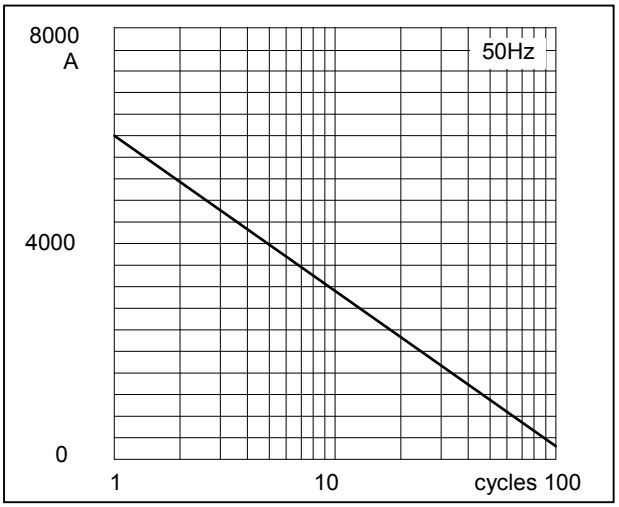


Fig4. Max Non-Repetitive Forward Surge Current

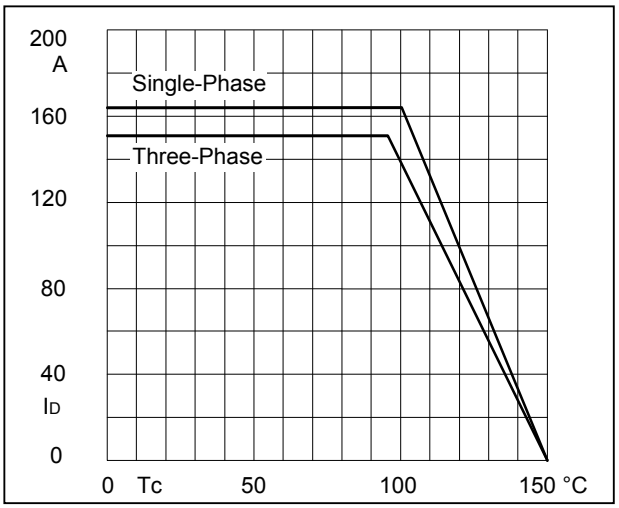
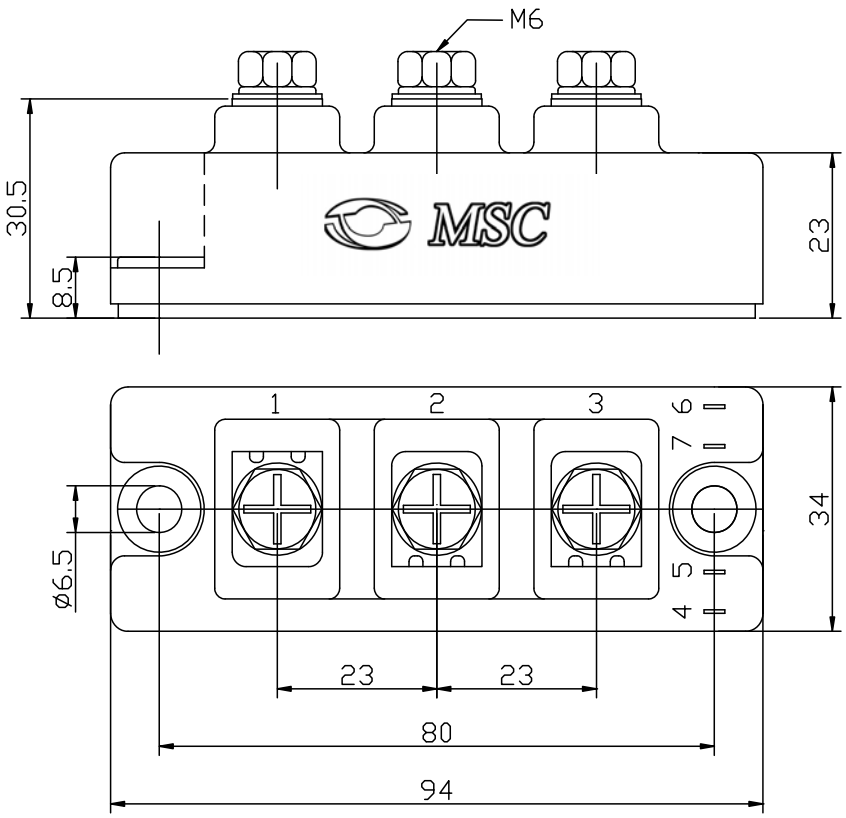


Fig5.Forward Current Derating Curve

Package Outline Information

CASE: D2



Dimensions in mm