MD60C(A/K)-D1N



Glass Passivated Rectifier Diode Modules

VRRM 800 to 1800V
IFAV 60 A

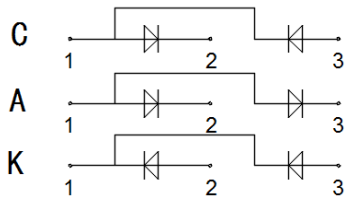
Applications

- 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 DBC ceramic isolated metal baseplate
- Glass passivated chip

Circuit



Module Type

TYPE			VRRM	VRSM
MD60C08D1N	MD60A08D1N	MD60K08D1N	800V	900V
MD60C12D1N	MD60A12D1N	MD60K12D1N	1200V	1300V
MD60C16D1N	MD60A16D1N	MD60K16D1N	1600V	1700V
MD60C18D1N	MD60A18D1N	MD60K18D1N	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I_{FAV}	Single phase ,half wave 180° conduction Tc=100℃	60	A
I_{FSM}	t=10mS Tvj =45℃	1800	A
i^2t	t=10mS Tvj =45℃	16200	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(M5)	3±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	100	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.3	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{FM}	T=25℃ I_F =200A	—	1.30	1.45	V
I_{RD}	T_{vj}=150℃ V_{RD}=V_{RRM}	—	—	5	mA

Performance Curves

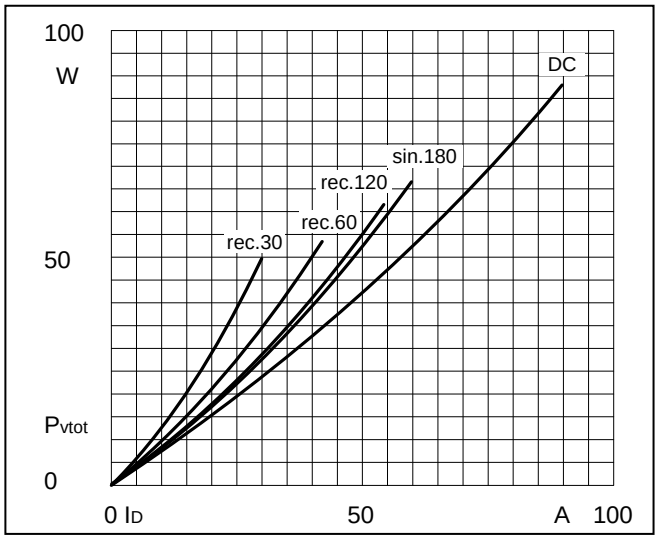


Fig1. Power dissipation

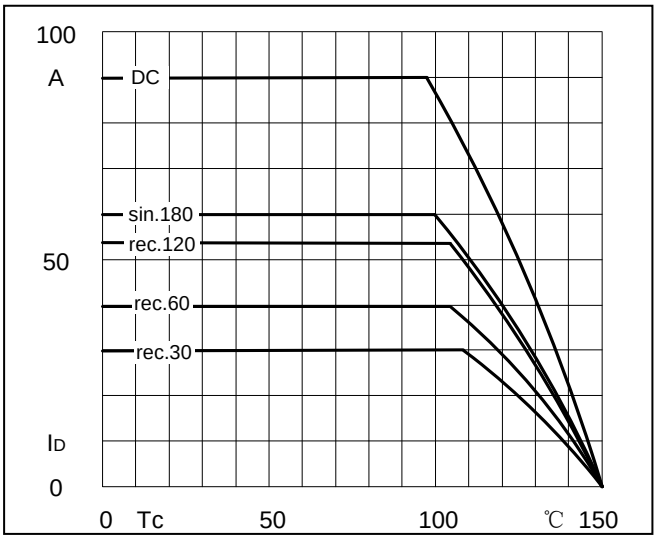


Fig2.Forward Current Derating Curve

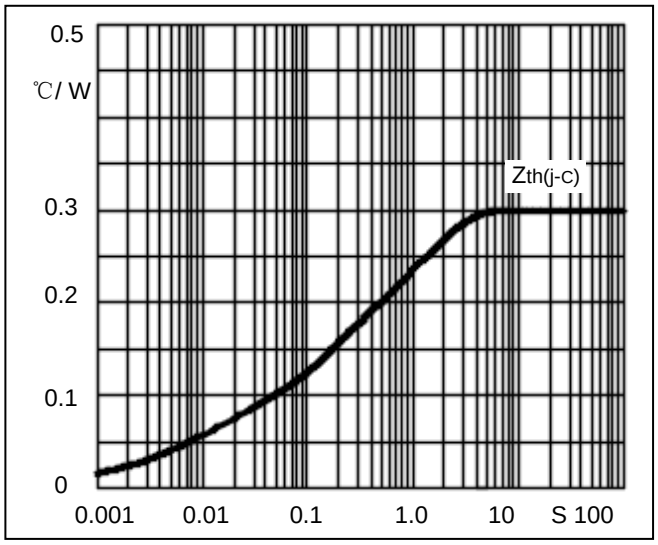


Fig3. Transient thermal impedance

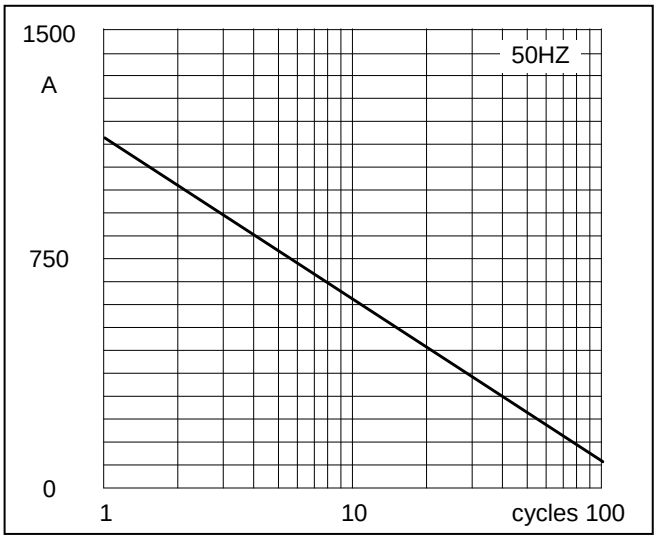


Fig4. Max Non-Repetitive Forward Surge Current

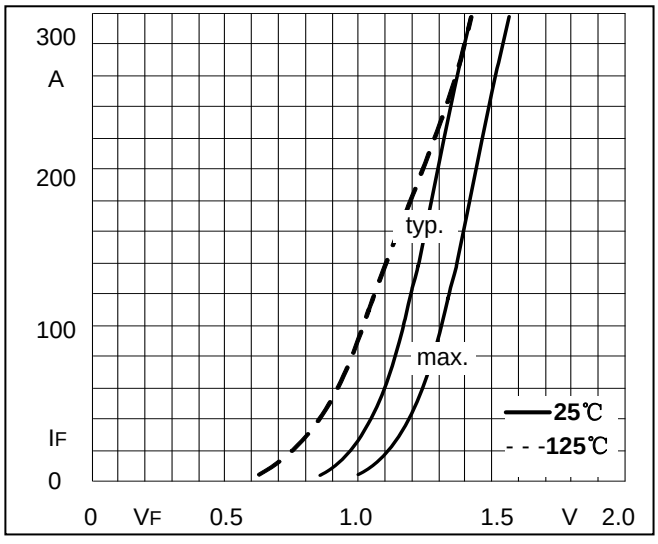
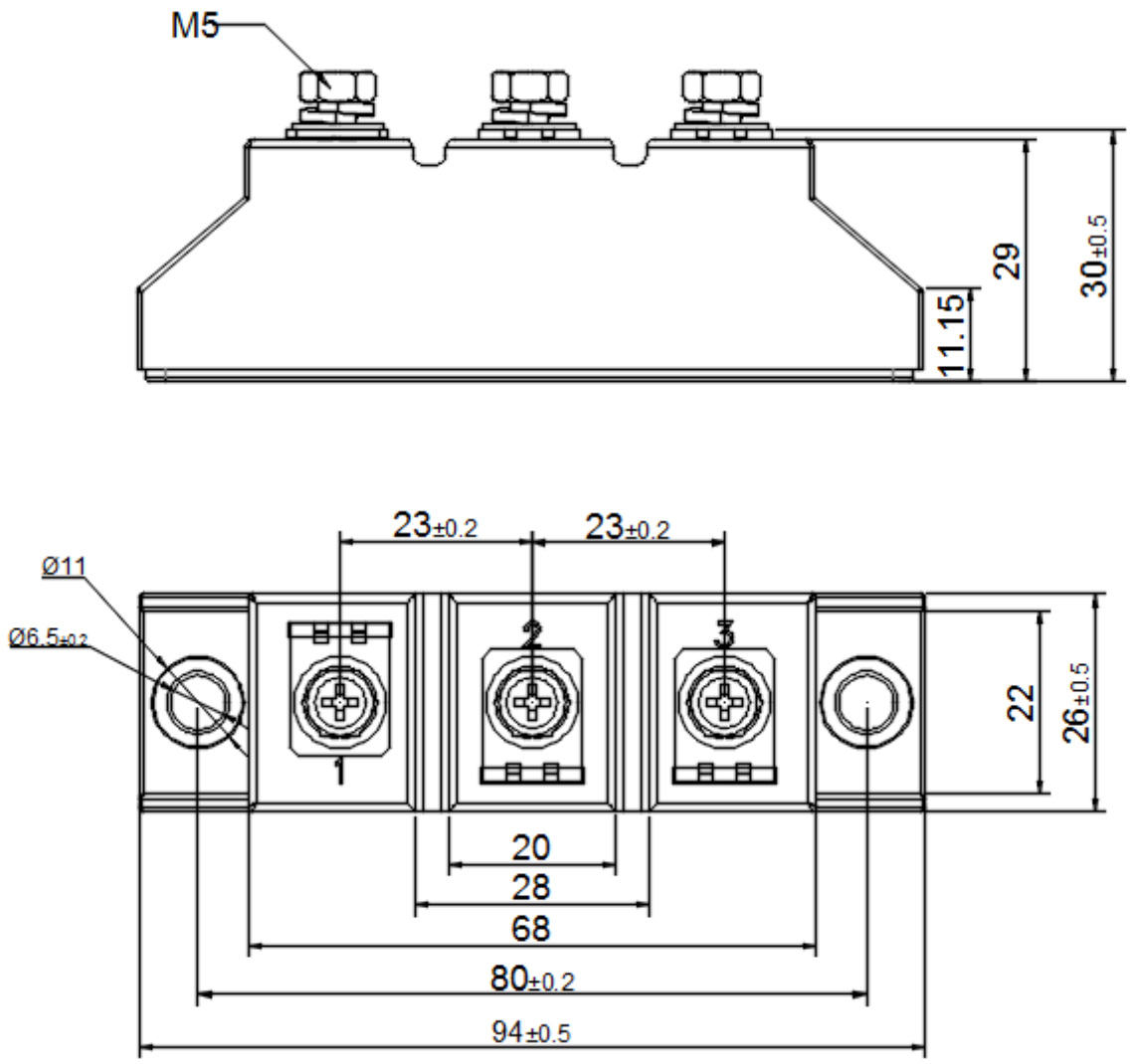


Fig5. Forward Characteristics

Package Outline Information

CASE: D1N



Dimensions in mm