



GLASS PASSIVATED RECTIFIER DIODE MODULES

D1D36C18

VOLTAGE RANGE
CURRENT

800 to 1800V
36 Ampere

APPLICATION

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



FEATURES

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

Circuit

D1D36C18

D1D36A18

D1D36K18

Module Type

TYPE			VRRM	V _{RSM}
D1D36C08	D1D36A08	D1D36K08	800V	900V
D1D36C12	D1D36A12	D1D36K12	1200V	1300V
D1D36C16	D1D36A16	D1D36K16	1600V	1700V
D1D36C18	D1D36A18	D1D36K18	1800V	1900V

Symbol	Conditions	Values	Units
I _{FAV}	Single phase ,half wave 180° conduction T _c =104°C	36	A
I _{F(RMS)}	Single phase ,half wave 180° conduction T _c =100°C	52	A
I _{FSM}	t=10mS T _{vj} =45°C	650	A
i ² t	t=10mS T _{vj} =45°C	2100	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min	3000	V
T _{vj}		-40 to +150	°C
T _{stg}		-40 to +125	°C
M _t	To terminals(M5)	3±15%	Nm
M _s	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	100	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	1.0	°C/W
R _{th(c-s)}	Module	0.1	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25°C I _F =100A	—	1.25	1.40	V
I _{RD}	T _{vj} =150°C V _{RD} =V _{RRM}	—	—	5	mA



GLASS PASSIVATED RECTIFIER DIODE MODULES

D1D36C18

VOLTAGE RANGE
CURRENT

800 to 1800V
36 Ampere

Performance Curves

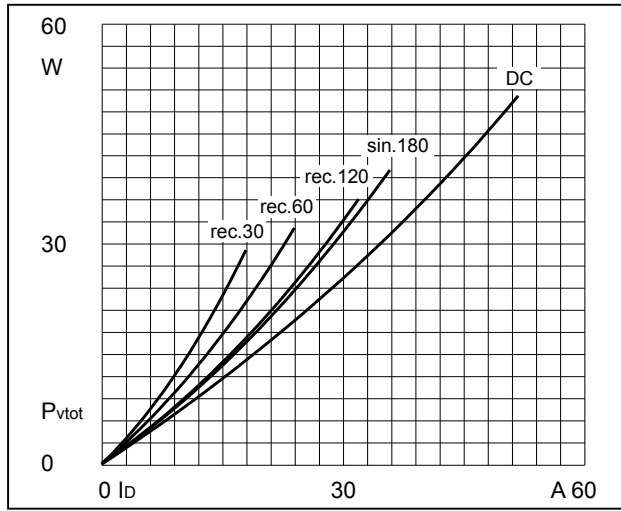


Fig1. Power dissipation

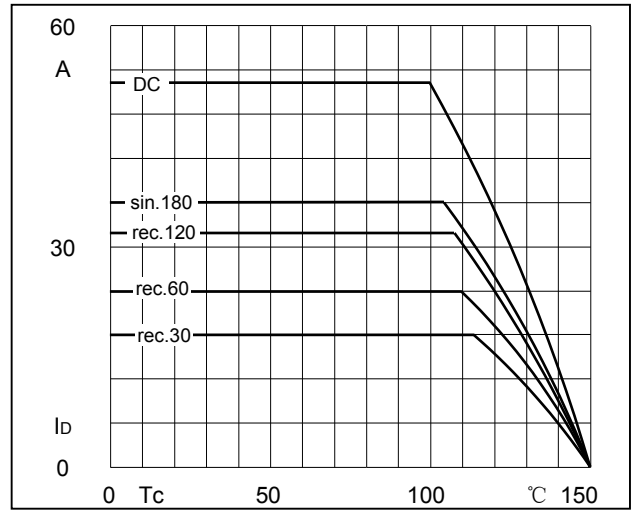


Fig2. Forward Current Derating Curve

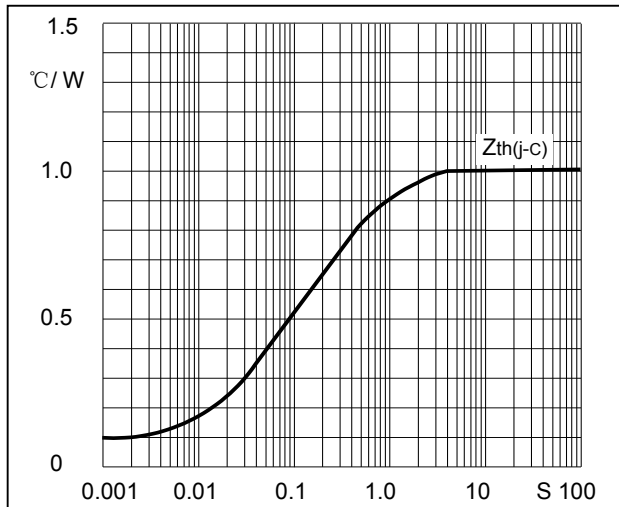


Fig3. Transient thermal impedance

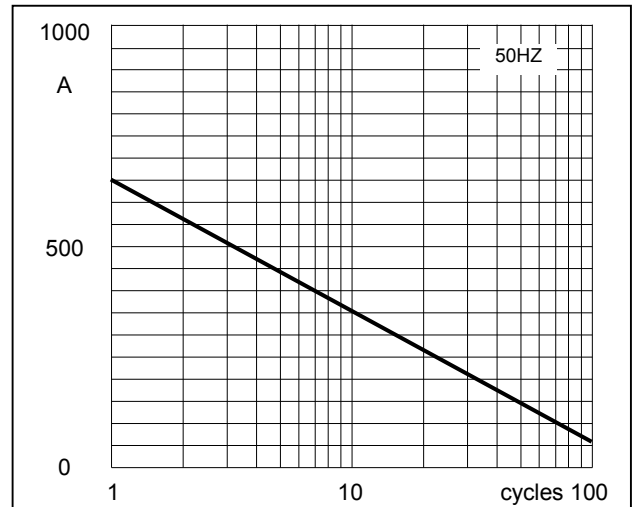


Fig4. Max Non-Repetitive Forward Surge Current

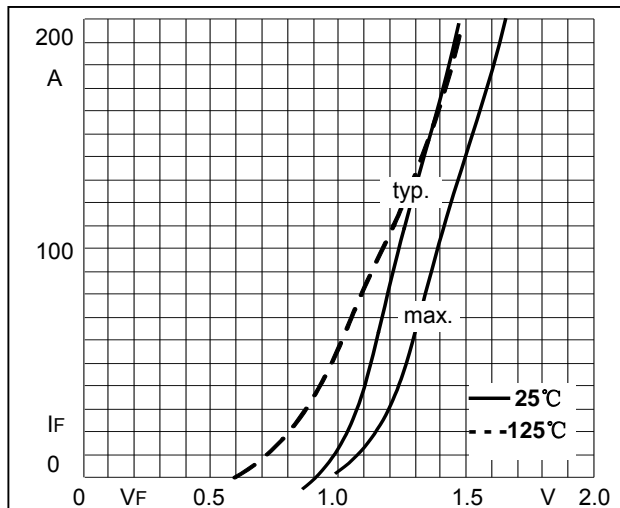


Fig5. Forward Characteristics



GLASS PASSIVATED RECTIFIER DIODE MODULES

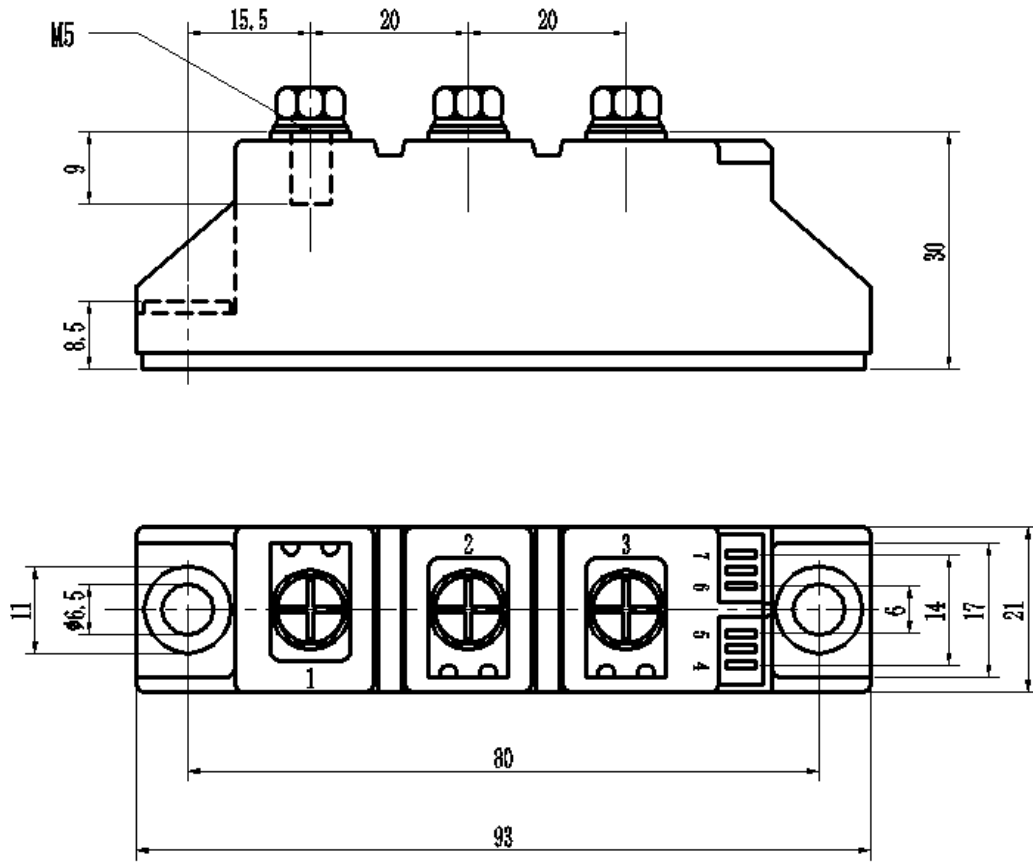
D1D36C18

VOLTAGE RANGE
CURRENT

800 to 1800V
36 Ampere

Package Outline Information

CASE: D1



Dimensions in mm