



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 DBC ceramic isolated metal baseplate
- Glass passivated chip

Circuit			
MD100C18J1			
MD100A18J1			
MD100K18J1			

Module Type

TYPE			VRRM	VRSM
MD100C08J1	MD100A08J1	MD100K08J1	800V	900V
MD100C12J1	MD100A12J1	MD100K12J1	1200V	1300V
MD100C16J1	MD100A16J1	MD100K16J1	1600V	1700V
MD100C18J1	MD100A18J1	MD100K18J1	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=109°C	100	A
IF(RMS)	Single phase ,half wave 180° conduction Tc=97°C	150	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)	3±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module	140	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
		Min.	Typ.	Max.	
VFM	T=25°C IF =300A	—	1.30	1.55	V
IRD	Tvj=150°C VRD=VRRM	—	—	5	mA

Performance Curves

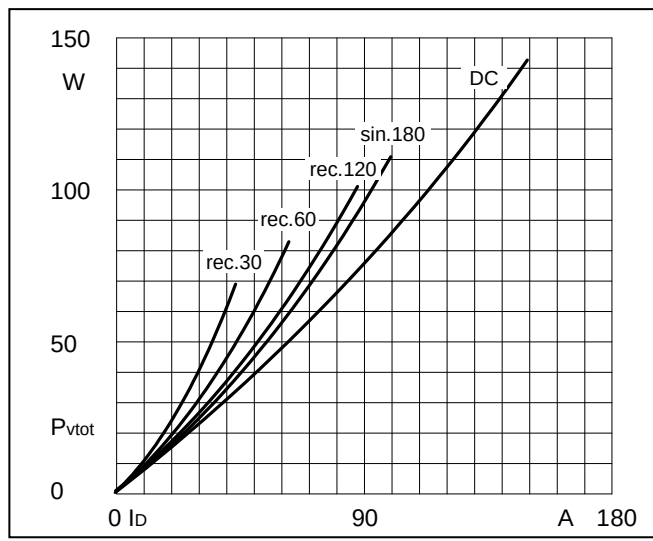


Fig1. Power dissipation

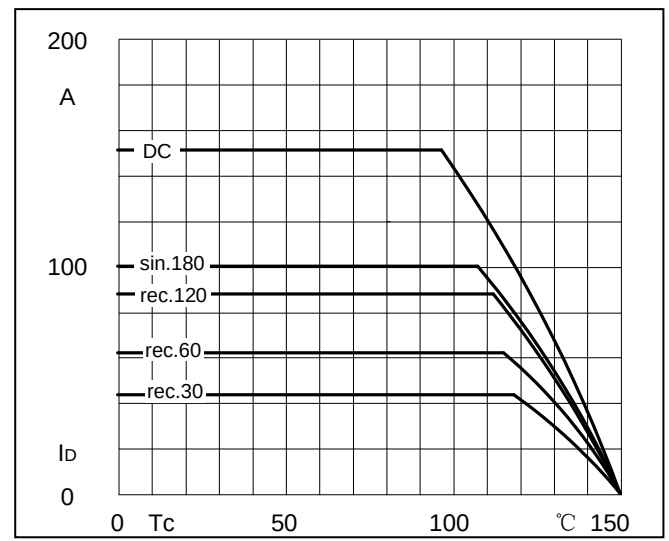


Fig2. Forward Current Derating Curve

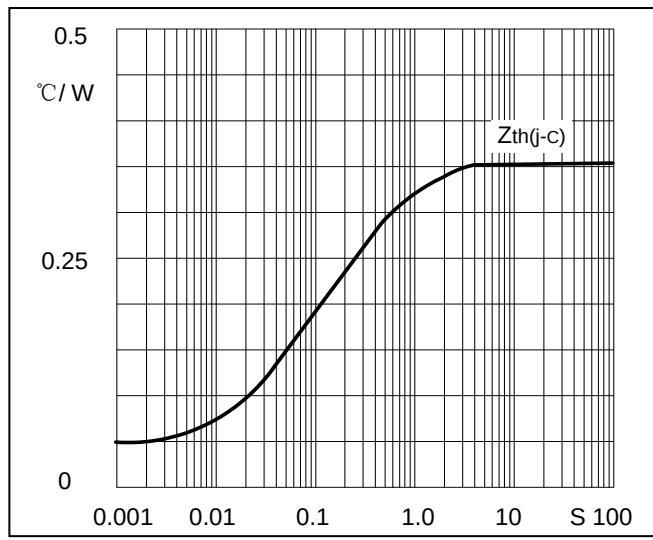


Fig3. Transient thermal impedance

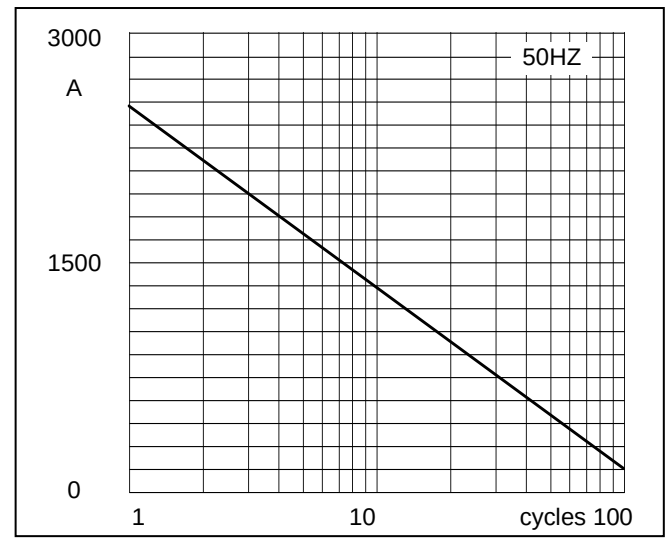


Fig4. Max Non-Repetitive Forward Surge Current

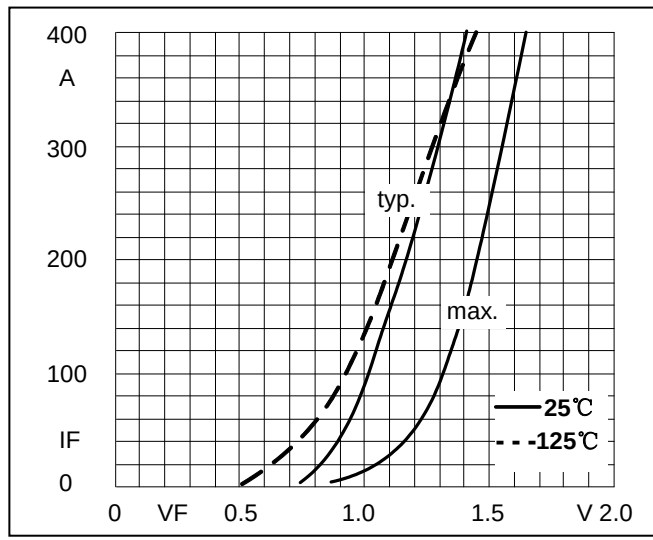
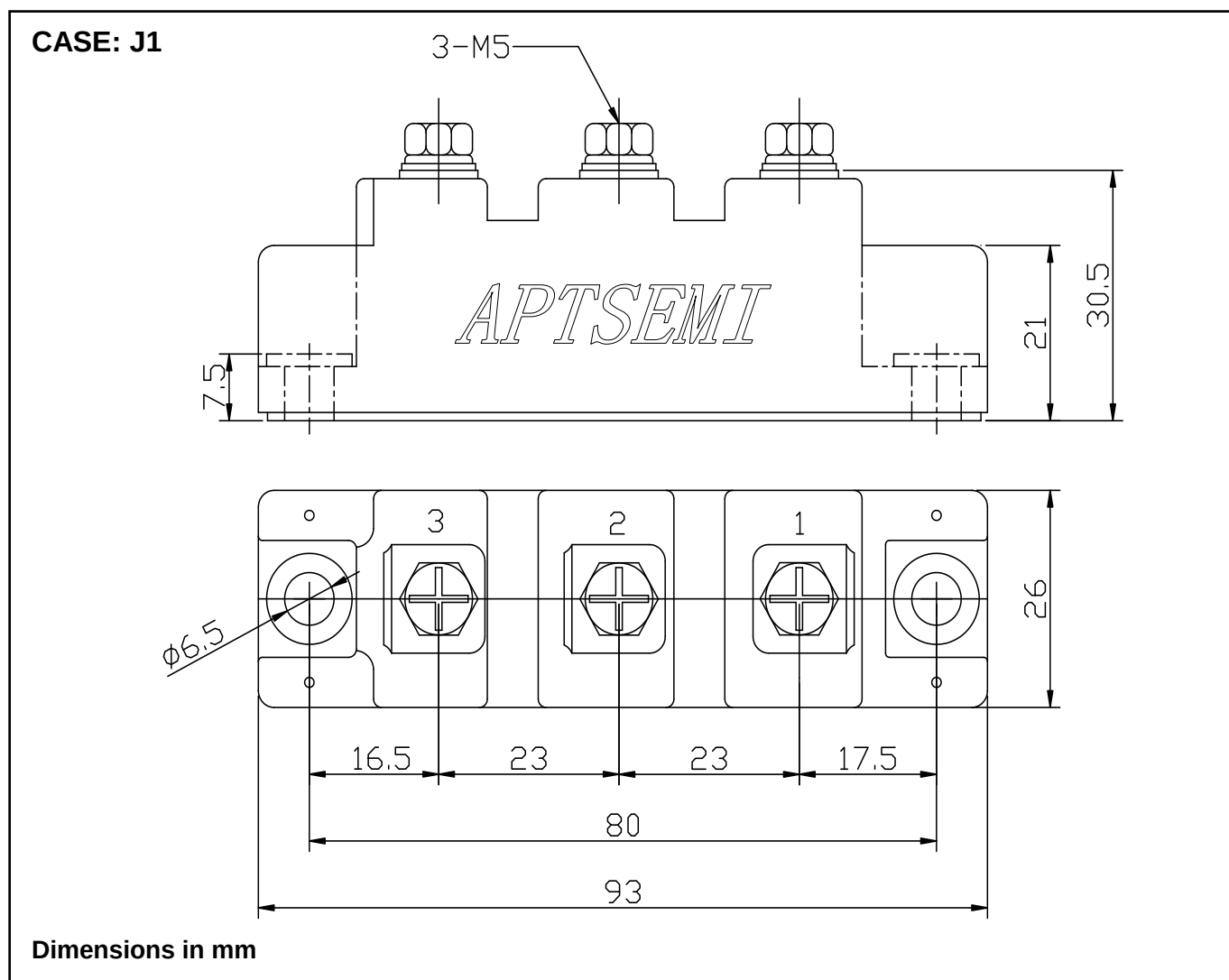


Fig5. Forward Characteristics

Package Outline Information



SHANGHAI LEIDITECH ELECTRONICS CO.,LTD

Tel: +86- 021 50828806

Fax: +86- 021 50477059-8008

Email: sale1@leiditech.com

Website: <http://www.leiditech.com>