MT160CB-T2

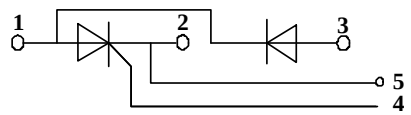
Thyristor/Diode Modules

V_{RRM} / V_{DRM} 800 to 1800V
I_{FAV} / I_{TAV} 160A

Applications

Power Converters
Lighting Control
DC Motor Control and Drives
Heat and temperature control

Circuit



Features

International standard package
High Surge Capability
Glass passivated chip
Simple Mounting
Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
UL recognized applied for file no. E230084

Module Type

TYPE	V_{RRM}/V_{DRM}	V_{RSM}
MT160CB08T2	800V	900V
MT160CB12T2	1200V	1300V
MT160CB16T2	1600V	1700V
MT160CB18T2	1800V	1900V

Diode

Maximum Ratings

Symbol	Item	Conditions	Values	Units
I_D	Output Current(D.C.)	Tc=85	160	A
I_{FSM}	Surge forward current	t=10mS Tvj =45	5400	A
i^2t	Circuit Fusing Consideration		145000	A^2s
Visol	Isolation Breakdown Voltage(R.M.S)	a.c.50HZ;r.m.s.;1min	3000	V
Tvj	Operating Junction Temperature		-40 to +125	
Tstg	Storage Temperature		-40 to +125	
Mt	Mounting Torque	To terminals(M6)	3±15%	Nm
Ms		To heatsink(M6)	5±15%	Nm
Weight	Module Approximately		165	g

Thermal Characteristics

Symbol	Item	Conditions	Values	Units
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to Case	0.085	/W
Rth(c-s)	Thermal Impedance, max.	Case to Heatsink	0.05	/W

Electrical Characteristics

Symbol	Item	Conditions	Values			Units
			Min.	Typ.	Max.	
V_{FM}	Forward Voltage Drop, max.	T=25 I_F =300A			1.20	V

I_{RRM}

Performance Curves

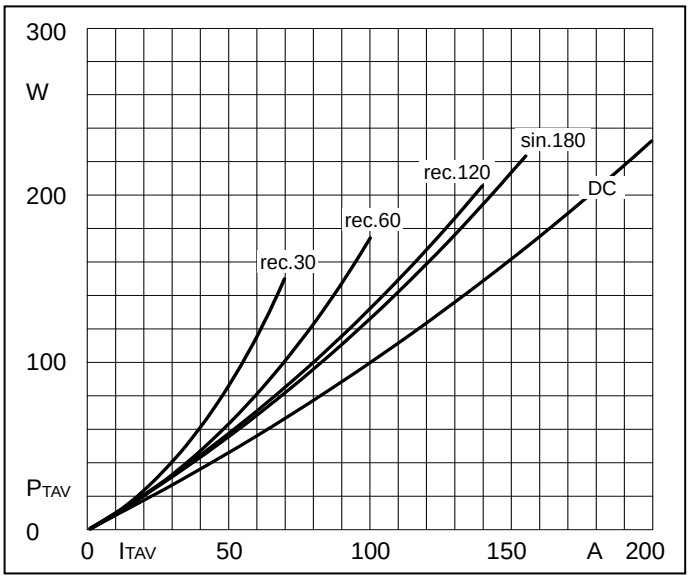


Fig1. Power dissipation

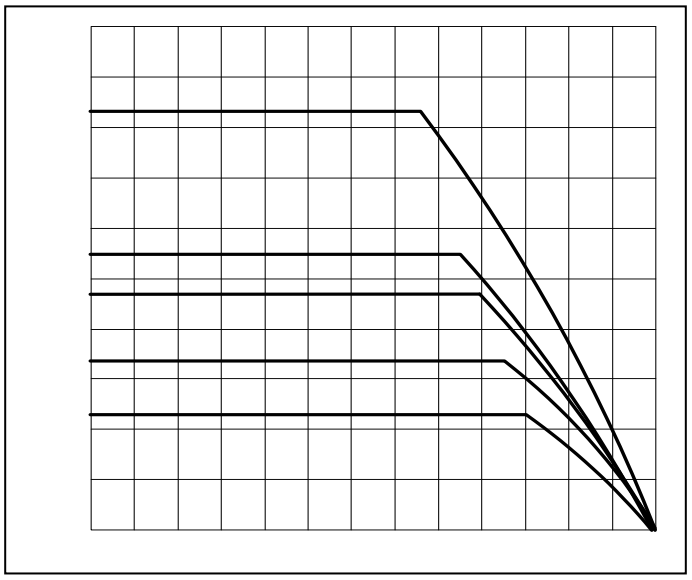


Fig2.Forward Current Derating Curve

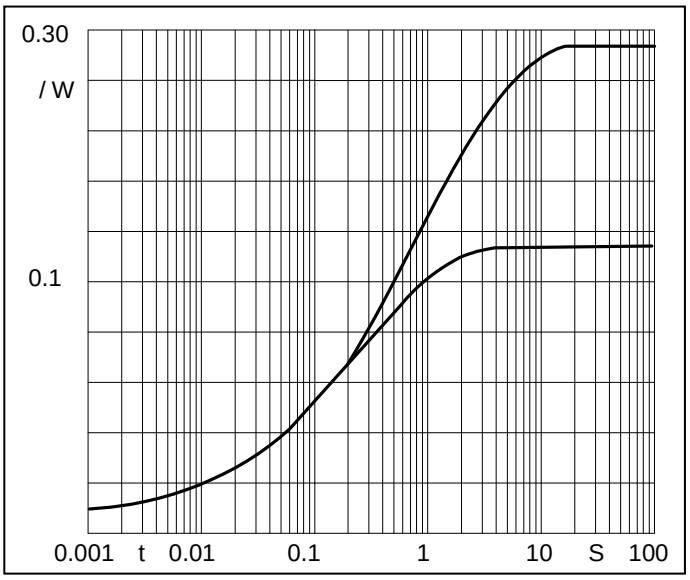


Fig3. Transient thermal impedance

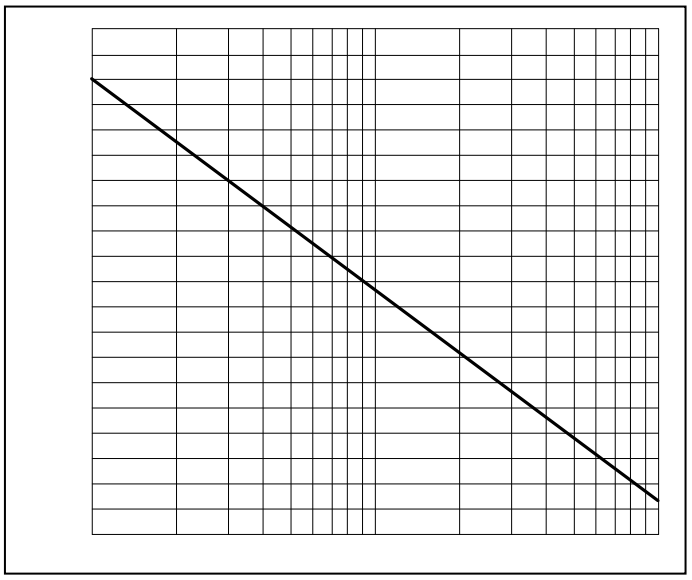


Fig4. Max Non-Repetitive Forward Surge Current

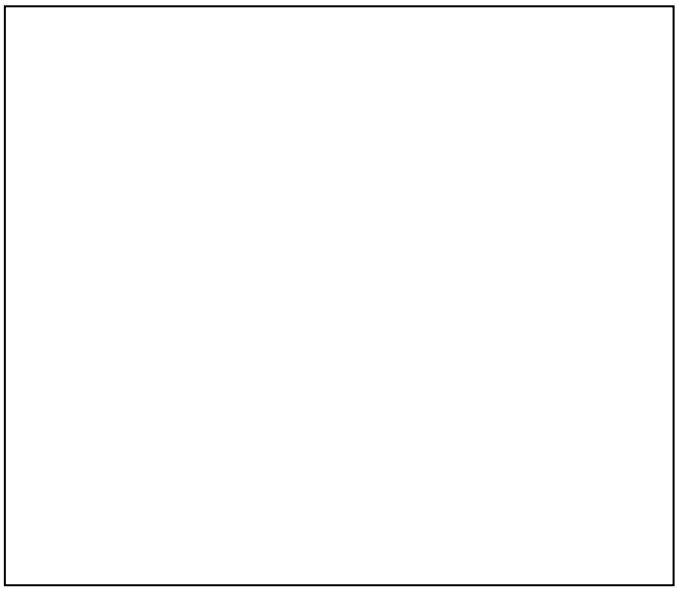


Fig5. Forward Characteristics

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