



Thyristor Modules

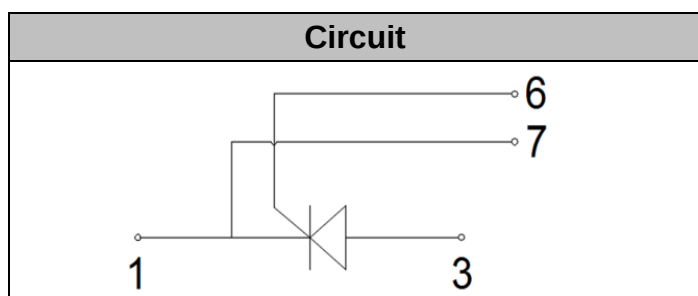
V_{RRM} / V_{DRM} 1600 to 1800V
I_{TAV} 200A

Applications

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

Features

- International standard package
- High Surge Capability
- Glass passivated chip
- Simple Mounting
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate



Module Type

TYPE	V _{RRM}	V _{RSM}
MT200U16T2B MT200U18T2B	1600V 1800V	1700V 1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I _{TAV}	Sine 180°; T _c =85°C	200	A
I _{TSM}	T _{VJ} =45°C t=10ms, sine T _J =125°C t=10ms, sine	4500 4000	A
i ² t	T _{VJ} =45°C t=10ms, sine T _{VJ} =125°C t=10ms, sine	101250 80000	A ² s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
T _{vj}		-40 to 125	°C
T _{stg}		-40 to 125	°C
M _t	To terminals(M6)	3±15%	Nm
M _s	To heat sink(M6)	5±15%	Nm
di/dt	T _{VJ} = T _{VJM} , 2/3V _{DRM} ,I _G =500mA Tr<0.5us,tp>6us	200	A/us
dv/dt	T _J = T _{VJM} ,2/3V _{DRM} , linear voltage rise	1000	V/us
a	Maximum allowable acceleration	50	m/s ²
Weight	Module(Approximately)	165	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per thyristor	0.16	°C/W
R _{th(c-s)}	per thyristor	0.1	°C/W

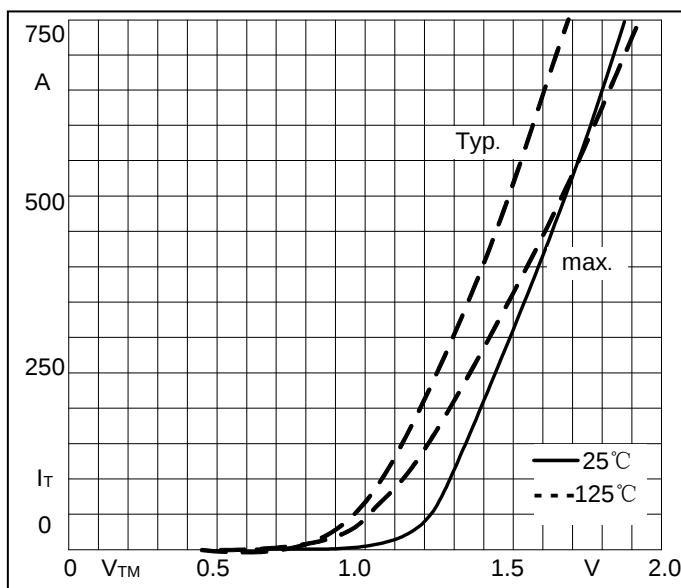
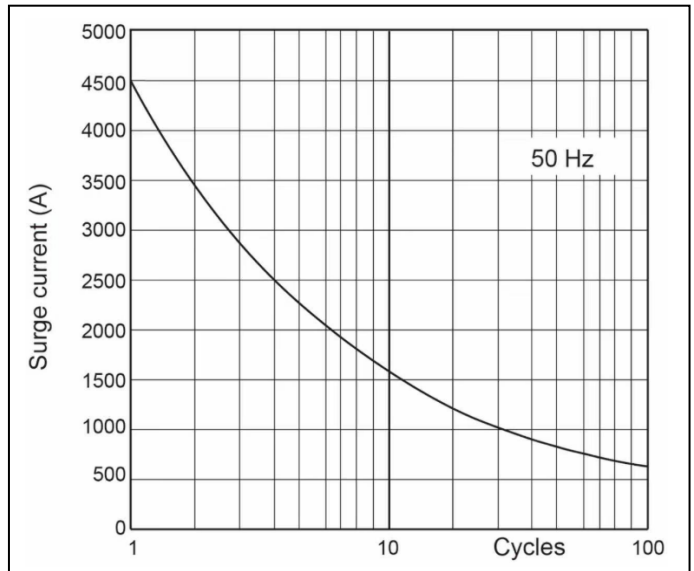
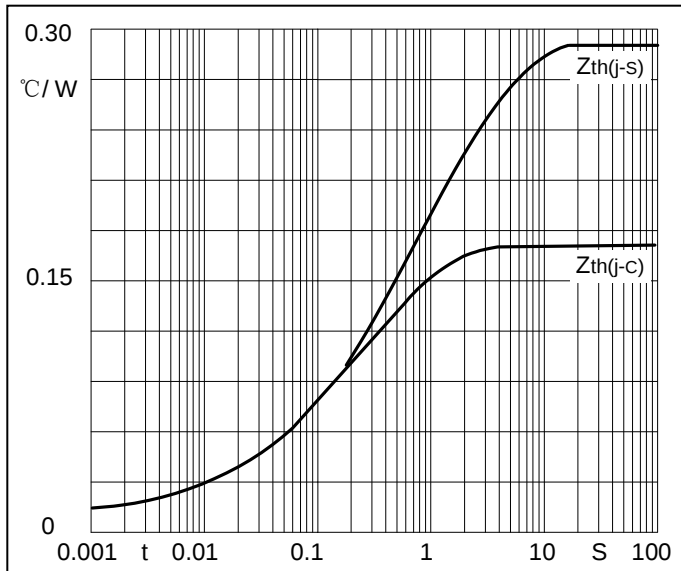
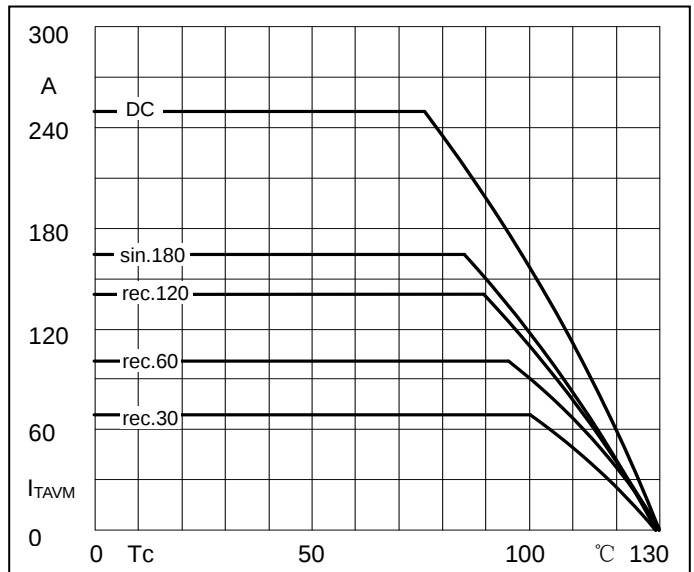
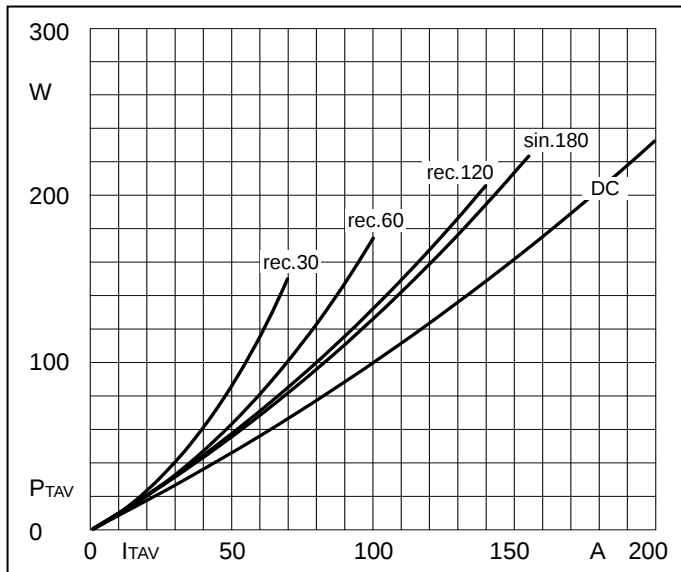


Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{TM}	$T=25^{\circ}C$ $I_{TM}=500A$			1.68	V
I_{RRM}/I_{DRM}	$T_{VJ}=T_{VJM}$, $V_R=V_{RRM}$, $V_D=V_{DRM}$			50	mA
V_{TO}	For power-loss calculations only ($T_{VJ}=125^{\circ}C$)			0.85	V
r_T	$T_{VJ}=T_{VJM}$			1.5	m Ω
V_{GT}	$T_{VJ}=25^{\circ}C$, $V_D=6V$			3	V
I_{GT}	$T_{VJ}=25^{\circ}C$, $V_D=6V$			200	mA
V_{GD}	$T_{VJ}=125^{\circ}C$, $V_D=2/3V_{DRM}$			0.25	V
I_{GD}	$T_{VJ}=125^{\circ}C$, $V_D=2/3V_{DRM}$			10	mA
I_L	$T_{VJ}=25^{\circ}C$, $R_G=33\Omega$		300	1000	mA
I_H	$T_{VJ}=25^{\circ}C$, $V_D=6V$		150	400	mA
tgd	$T_{VJ}=25^{\circ}C$, $I_G=1A$, $di_G/dt=1A/us$	1			us
tq	$T_{VJ}=T_{VJM}$	100			us



Performance Curves



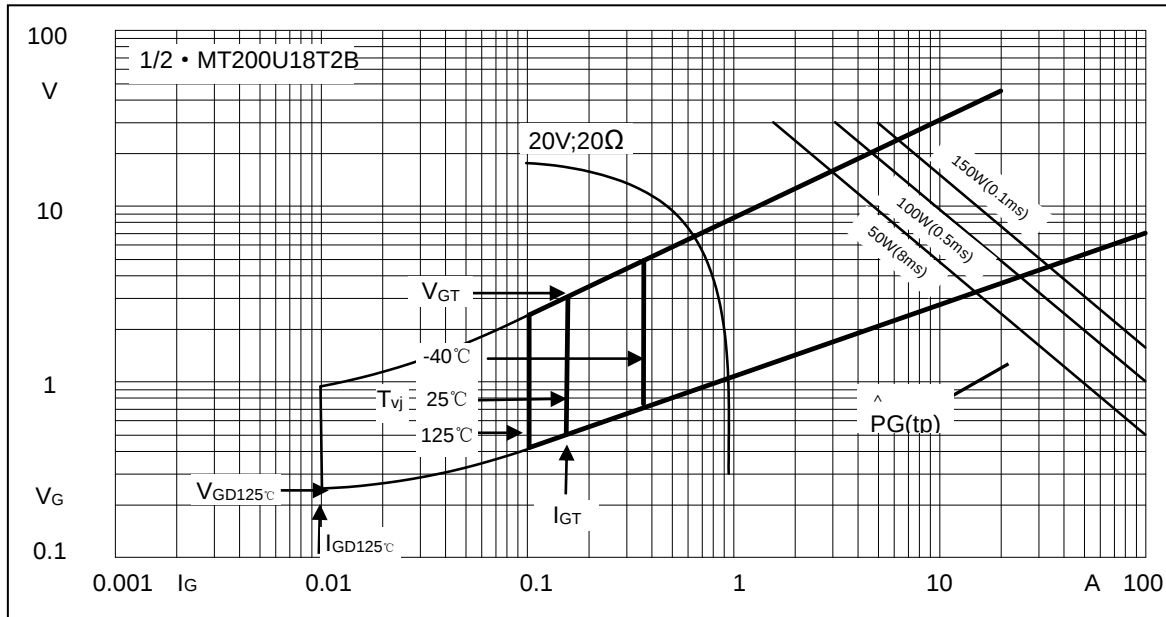
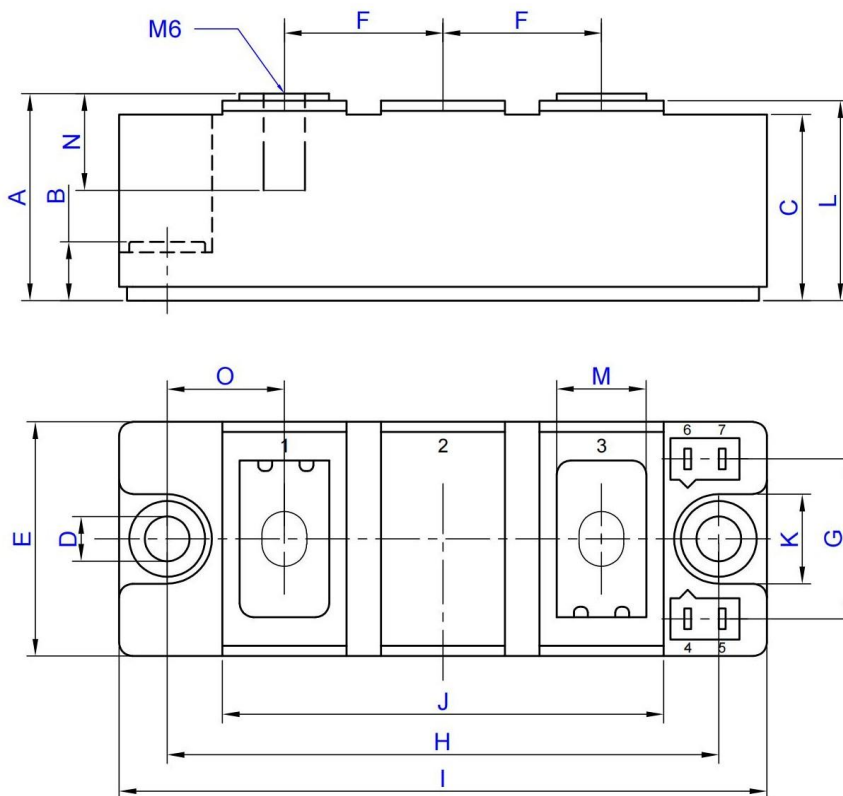


Fig6. Gate trigger Characteristics

Package Outline Information

CASE: T2B-U



DIM	Min (mm)	Max (mm)	Note
A	29.5	30.5	
B	8.0	9.0	
C	26.5	27.5	
D	6.3	6.7	Ø
E	33.5	34.5	
F	22.8	23.2	
G	22.7	23.7	
H	79.5	80.5	
I	93.5	94.5	
J	63.5	64.5	
K	12.5	13.5	
L	28.5	29.5	
M	12.9	13.1	
N	13.5	14.5	
O	16.5	17.5	



Packing Standard

Item	Length: A (mm)	Width: B (mm)	Height: C (mm)	Quantity (PCS)
Inner Box	276	258	48	8
Outer Carton	545	295	240	80

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