Micro Commercial Components

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20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

MT200C08T2
MT200C12T2
MT200C16T2
MT200C18T2

200 Amp
THYRISTOR MODULE
800~1800 Volts

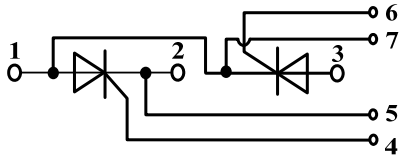
Features

- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)
- International standard package
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip
- Simple Mounting

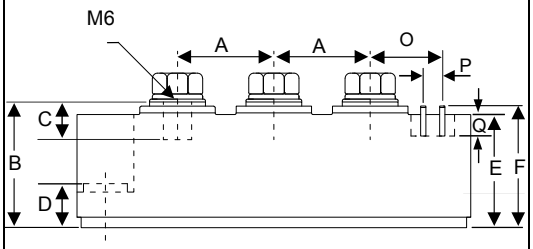
Applications

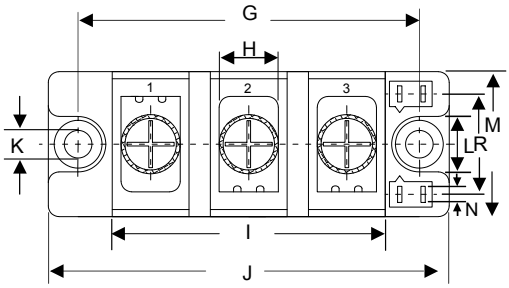
- Power Converters
- Lighting Control
- DC Motor Control and Drives
- Heat and temperature control

Circuit



T2





DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.894	.917	22.70	23.30	
B	1.169	1.193	29.70	30.30	
C	.343	.366	8.70	9.30	
D	.323	.343	8.20	8.70	
E	1.051	1.075	26.70	27.30	
F	1.130	1.154	28.70	29.30	
G	.120	.130	79.70	80.30	
H	.500	.524	12.70	13.30	
I	2.501	2.531	63.70	64.30	
J	3.689	3.713	93.70	94.30	
K	.256		6.50		∅
L	.500	.524	12.70	13.30	
M	1.327	1.350	33.70	34.30	
N	0.032X0.11		0.8X2.8		
O	.677	.700	17.20	17.80	
P	.185	.209	4.70	5.30	
Q	.185	.209	4.70	5.30	
R	.902	.925	22.90	23.50	

Module Type

TYPE	VRRM	VRSM
MT200C08T2	800V	900V
MT200C12T2	1200V	1300V
MT200C16T2	1600V	1700V
MT200C18T2	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I_{TAV}	Sine 180°;Tc=85℃	200	A
I_{TSM}	T_{VJ}=45℃ t=10ms, sine T_{VJ}=125℃ t=10ms, sine	5500 5000	A
i^2t	T_{VJ}=45℃ t=10ms, sine T_{VJ}=125℃ t=10ms, sine	151000 125000	A2s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to 130	℃
Tstg		-40 to 125	℃
Mt	T terminals(M6)	3±15%	Nm
Ms	T heatsink(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	$_J$= T_{VJM} ,2/3V_{DRM}, linear voltage rise	1000	V/us
a	Maximum allowable acceleration	50	m/s^2
Weight	Mod e(Approximately)	165	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	C thyristor / per module	0.16/0.08	℃/W
Rth(c-s)	per thyristor / per module	0.1/0.05	℃/W

Symbol	Conditions	Values			Units
V_{TM}	T=25℃ I_{TM} =620A			1.7	V
I_{RRM}/I_{DRM}	T_{VJ} =T_{VJM} ,V_R=V_{RRM} ,V_D=V_{DRM}			40	mA
V_{TO}	For power-loss calculations only (T_{VJ} =125℃)			0.85	V
r_T	T_{VJ} =T_{VJM}			1.5	mΩ
V_{GT}	T_{VJ} =25℃ , V_D =6V			3	V
I_{GT}	T_{VJ} =25℃ , V_D =6V			200	mA
V_{GD}	T_{VJ} =125℃ , V_D =2/3V_{DRM}			0.25	V
I_{GD}	T_{VJ} =125℃ , V_D =2/3V_{DRM}			10	mA
I_L	T_{VJ} =25℃ , R_G = 33 Ω		300	1000	mA
I_H	T_{VJ} =25℃ , V_D =6V		150	400	mA
tgd	T_{VJ} =25℃, I_G=1A, di_G/dt=1A/us		1		us
tq	$_{VJ}$ =T_{VJM}		100		us

Performance Curves

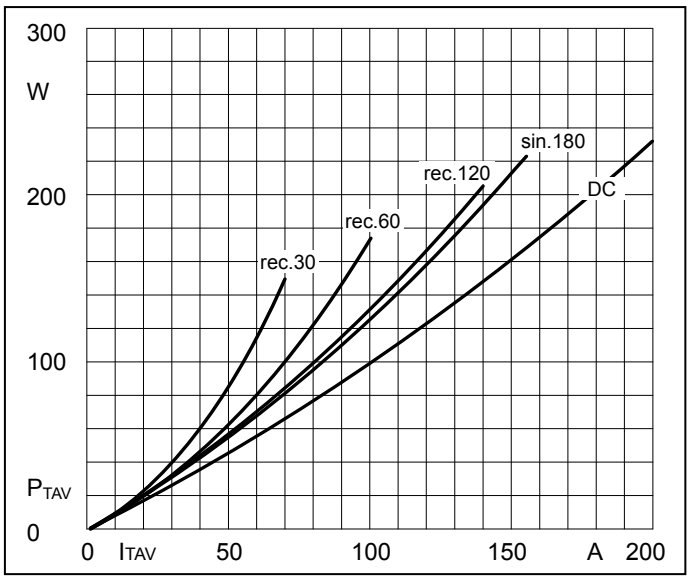


Fig1. Power dissipation

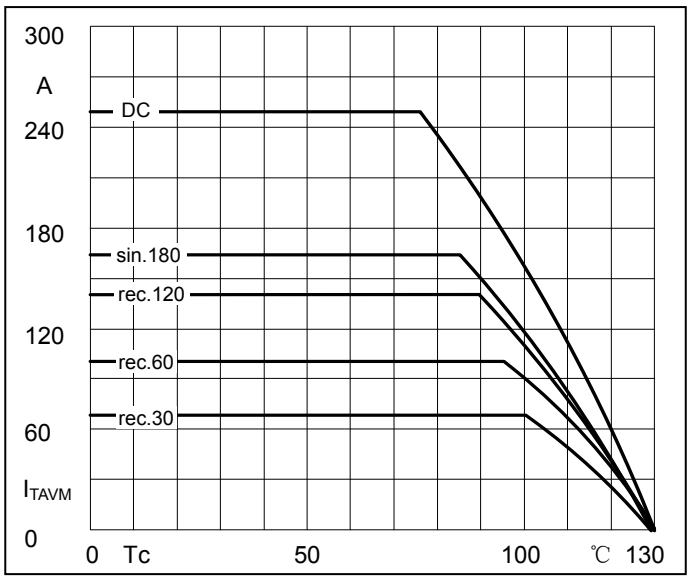


Fig2.Forward Current Derating Curve

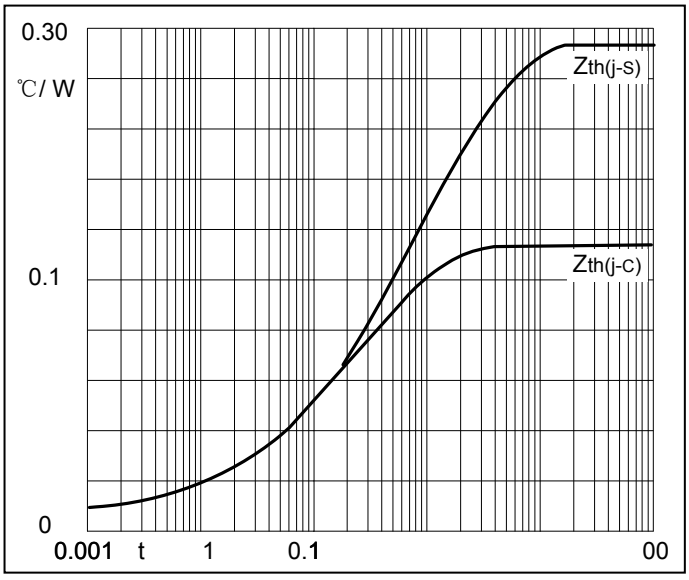


Fig3. Transient thermal impedance

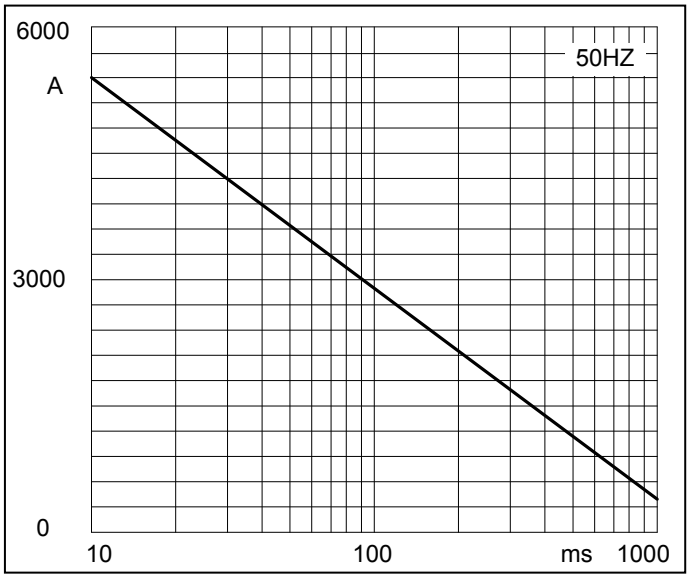


Fig4. Max Non-Repetitive Forward Surge Current

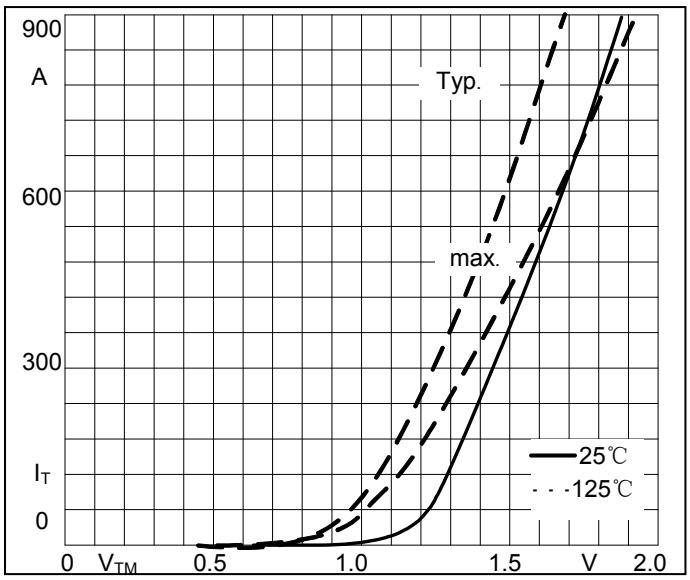


Fig5. Forward Characteristics

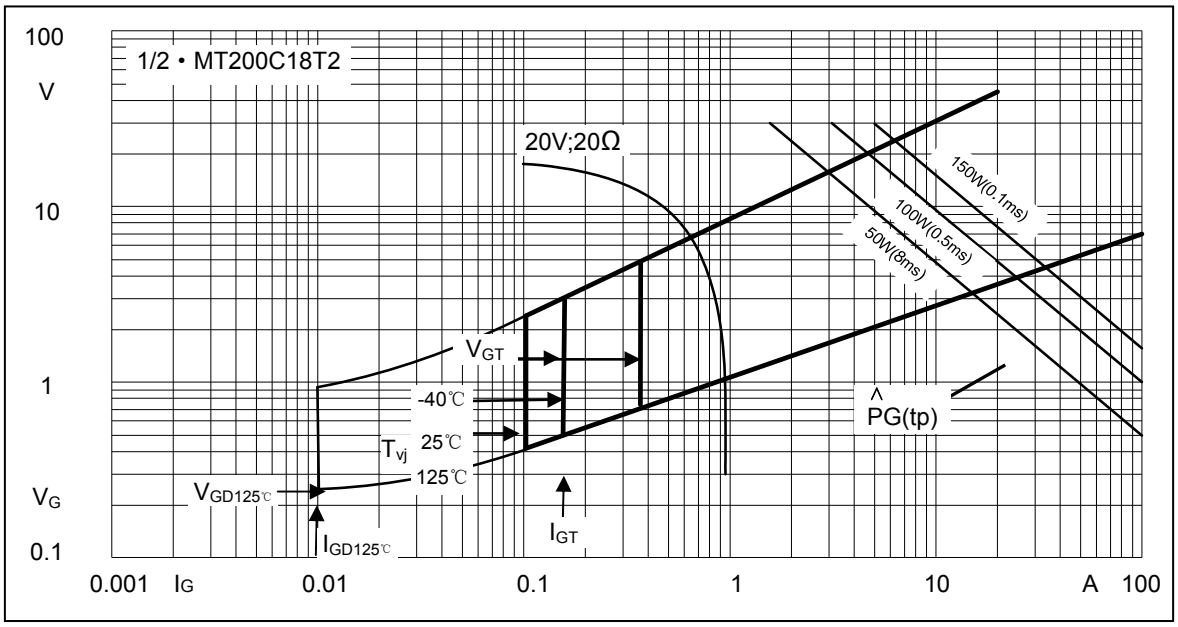


Fig6. Gate trigger Characteristics

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Ordering Information :

Device	Packing
Part Number-BP	Bulk: 8PCS/BOX ;80PCS/CTN

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