



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

Features

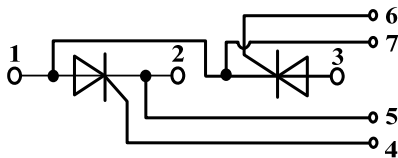
- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- International standard package
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip
- Simple Mounting

Applications

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

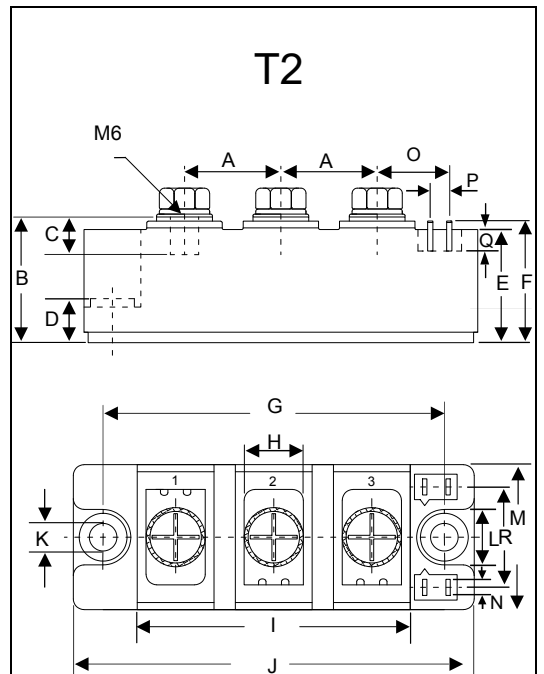


Circuit



200 Amp
THYRISTOR MODULE

800~1800 Volts



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
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°; $T_c=85^\circ\text{C}$	200	A
I_{TSM}	$T_{VJ}=45^\circ\text{C}$ $t=10\text{ms}$, sine	5500	A
	$T_{VJ}=125^\circ\text{C}$ $t=10\text{ms}$, sine	5000	
i^2t	$T_{VJ}=45^\circ\text{C}$ $t=10\text{ms}$, sine	151000	A ² s
	$T_{VJ}=125^\circ\text{C}$ $t=10\text{ms}$, sine	125000	
Visol	a.c.50HZ;r.m.s.;1min	3000	V
T_{vj}		-40 to 130	$^\circ\text{C}$
T_{stg}		-40 to 125	$^\circ\text{C}$
M_t	T terminals(M6)	$3 \pm 15\%$	Nm
M_s	T heatsink(M6)	$5 \pm 15\%$	Nm
di/dt	$T_{VJ}=T_{VJM}$, $2/3V_{DRM}$, $I_G=500\text{mA}$ $T_r < 0.5\mu\text{s}$, $t_p > 6\mu\text{s}$	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	Module(Approximately)	165	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	C thyristor / per module	0.16/0.08	$^\circ\text{C/W}$
$R_{th(c-s)}$	per thyristor / per module	0.1/0.05	$^\circ\text{C/W}$

Symbol	Conditions	Values		Units
V_{TM}	$T=25^\circ\text{C}$ $I_{TM}=620\text{A}$		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 ($T_{VJ}=125^\circ\text{C}$)		0.85	V
r_T	$T_{VJ}=T_{VJM}$		1.5	$\text{m}\Omega$
V_{GT}	$T_{VJ}=25^\circ\text{C}$, $V_D=6\text{V}$		3	V
I_{GT}	$T_{VJ}=25^\circ\text{C}$, $V_D=6\text{V}$		200	mA
V_{GD}	$T_{VJ}=125^\circ\text{C}$, $V_D=2/3V_{DRM}$		0.25	V
I_{GD}	$T_{VJ}=125^\circ\text{C}$, $V_D=2/3V_{DRM}$		10	mA
I_L	$T_{VJ}=25^\circ\text{C}$, $R_G=33\Omega$	300	1000	mA
I_H	$T_{VJ}=25^\circ\text{C}$, $V_D=6\text{V}$	150	400	mA
tg _d	$T_{VJ}=25^\circ\text{C}$, $I_G=1\text{A}$, $di_G/dt=1\text{A/us}$	1		us
tq	$V_J=T_{VJM}$	100		us

Performance Curves

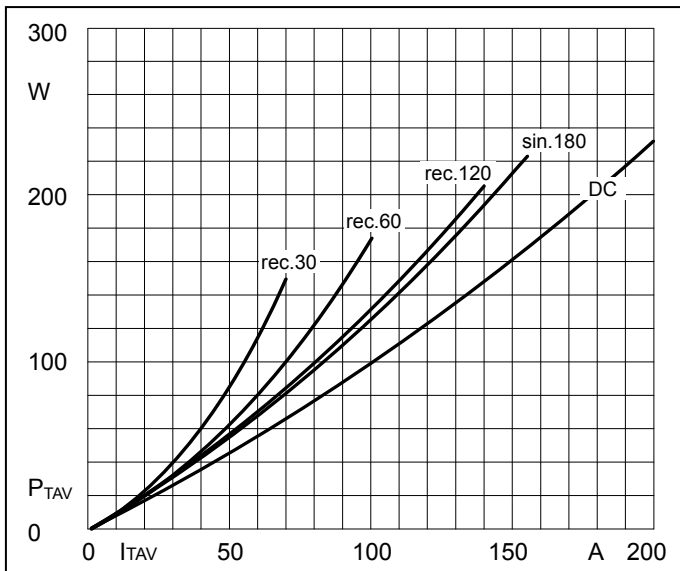


Fig1. Power dissipation

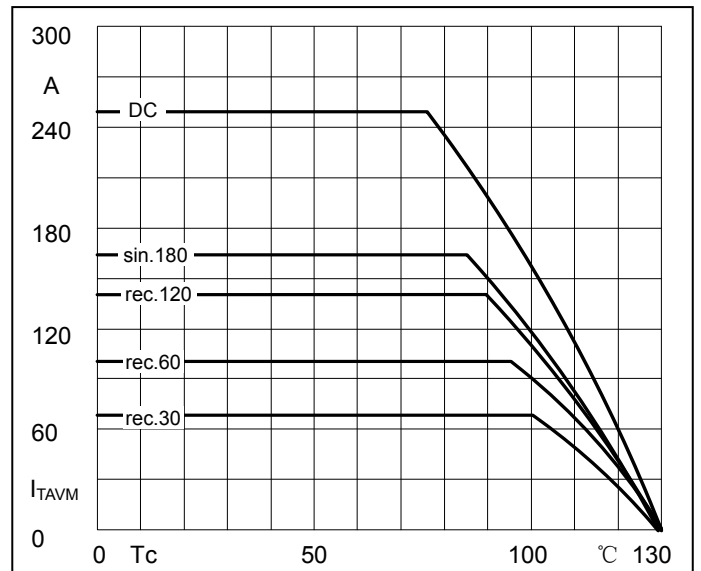


Fig2. Forward Current Derating Curve

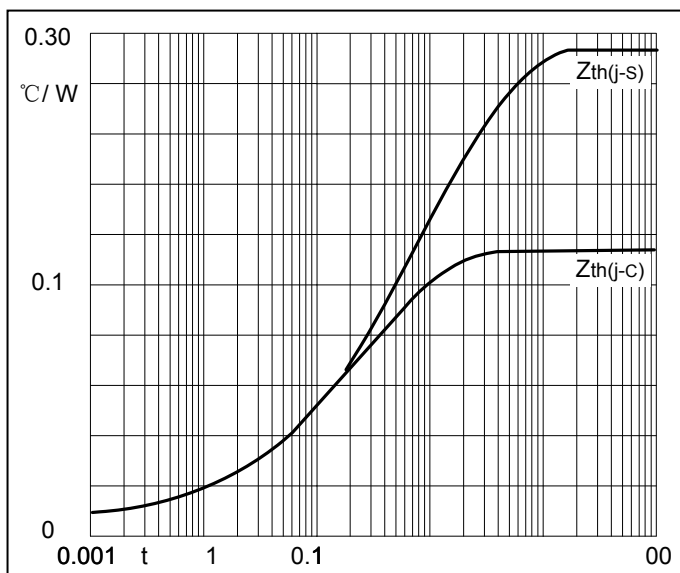


Fig3. Transient thermal impedance

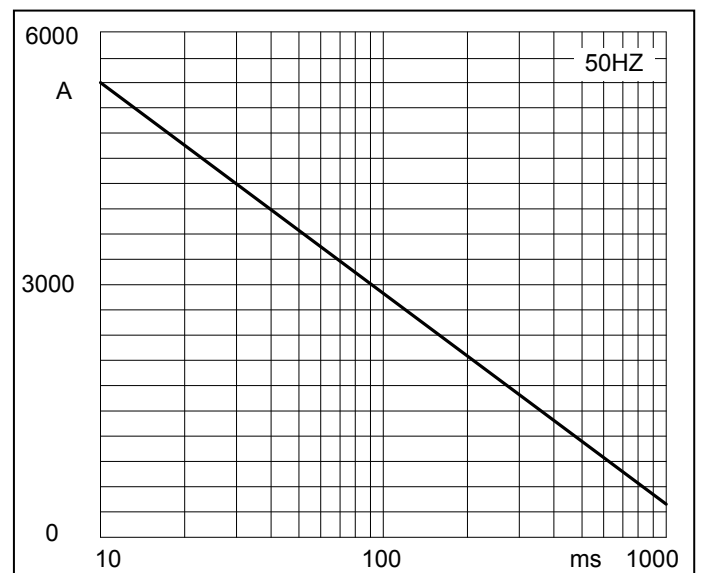


Fig4. Max Non-Repetitive Forward Surge Current

Performance Curves

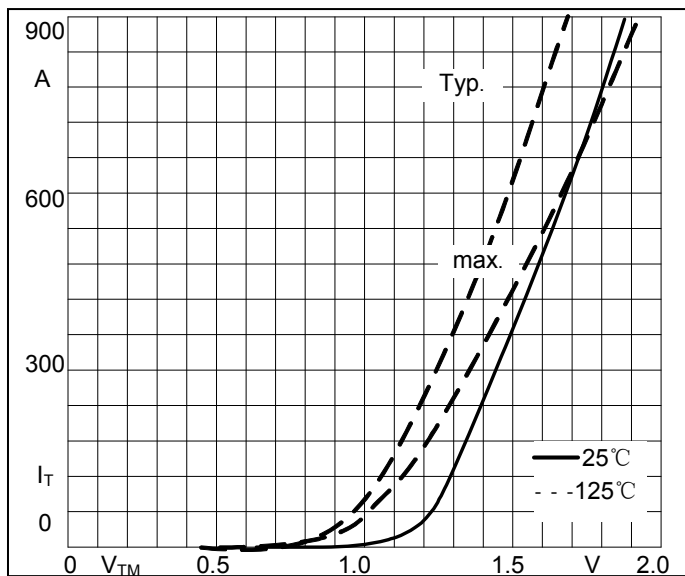


Fig5. Forward Characteristics

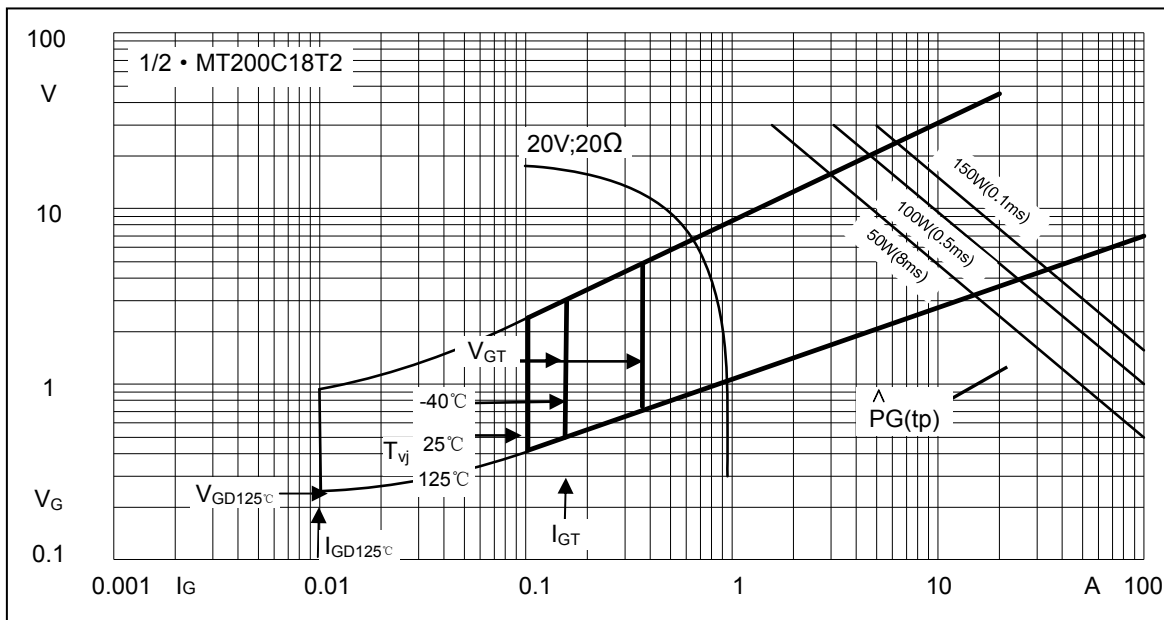


Fig6. Gate trigger Characteristics



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Ordering Information :

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

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