Features

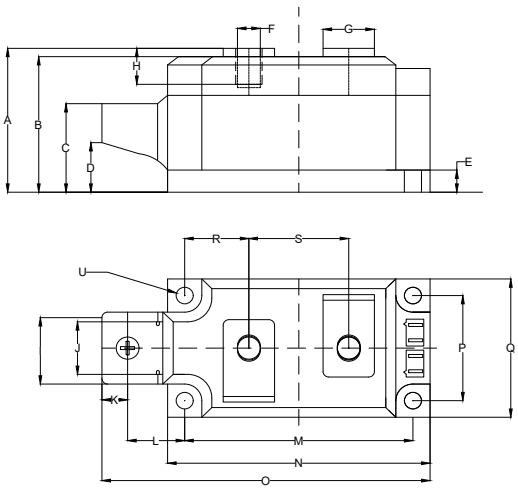
- International standard package
- High Surge Capability
- Simple Mounting
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

250 Amp Thyristor Modules 1600 Volts

Applications

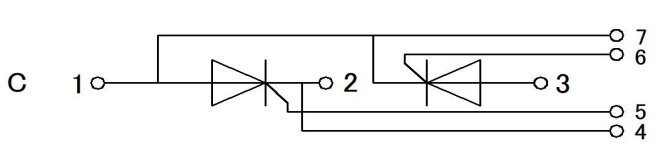
- Power Converters
- Lighting Control
- DC Motor Control and Drives
- Heat and temperature control

T3



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	2.028	2.067	51.50	52.50	
B	1.909	1.949	48.50	49.50	
C	1.240	1.280	31.50	32.50	
D	0.685	0.724	17.40	18.40	
E	0.295	0.335	7.50	8.50	
F	0.295	0.335	7.50	8.50	
G	0.689	0.728	17.50	18.50	
H	0.492	0.531	12.50	13.50	
I	1.004	1.043	25.50	26.50	
J	0.728	0.768	18.50	19.50	
K	0.335	0.374	8.50	9.50	
L	0.768	0.807	19.50	20.50	
M	3.130	3.169	79.50	80.50	
N	3.602	3.642	91.50	92.50	
O	4.508	4.547	114.50	115.50	
P	1.476	1.516	37.50	38.50	
Q	1.949	1.988	49.50	50.50	
R	0.866	0.906	22.00	23.00	
S	1.358	1.398	34.50	35.50	
T	0.236		6.00		Ø

Circuit



Note:1. High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 7a.

Module Type

TYPE	V_{RRM}	V_{RSM}
MT250C16T3W	1600V	1800V

Maximum Ratings

Symbol	Conditions	Values	Units
I_{TAV}	Sine 180°;Tc=85℃	250	A
I_{TSM}	T_{VJ} =125℃ t=10ms, sine	9000	A
i^2t	T_{VJ} =125℃ t=10ms, sine	405000	A^2s
Visol	a.c.50HZ;r.m.s.;1min,I_{iso} :2mA(MAX)	2500	V
Tvj		-40 to 125	℃
Tstg		-40 to 125	℃
Mt	To terminals(M8)	12±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
di/dt	T_{VJ}= T_{VJM} ,V_{DM} =2/3V_{DRM}	100	A/us
dv/dt	T_J= T_{VJM} ,2/3V_{DRM}, linear voltage rise	1000	V/us
Weight	Module(Approximately)	690	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per chip	0.12	℃/W
Rth(c-h)	per module	0.04	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{TM}	T=25℃ I_{TM} =750A			1.55	V
I_{RRM}/I_{DRM}	T_{VJ} =T_{VJM} ,V_R=V_{RRM} ,V_D=V_{DRM}			25	mA
V_{GT}	T_{VJ} =25℃ , V_D =12V, R_G = 3 Ω	0.8		2.5	V
I_{GT}	T_{VJ} =25℃ , V_D =12V, R_G = 3 Ω	30		150	mA
I_L	T_{VJ} =25℃ , V_D =12V, R_G = 3 Ω			1000	mA
I_H	T_{VJ} =25℃ , V_D =12V, R_G = 3 Ω	20		150	mA

Performance Curves

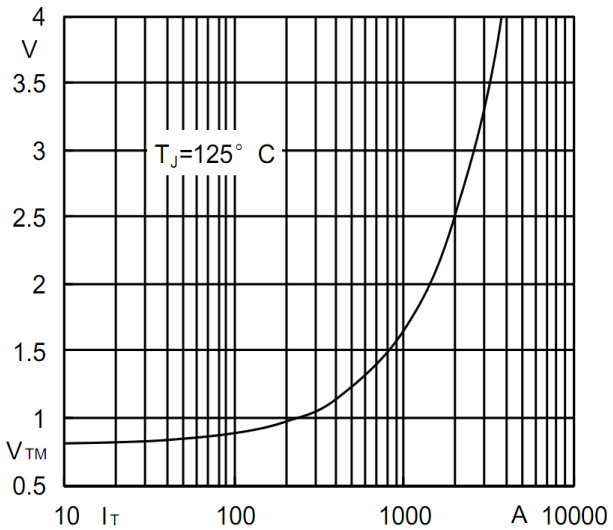


Fig1. Peak On-state Voltage Vs Peak On-state

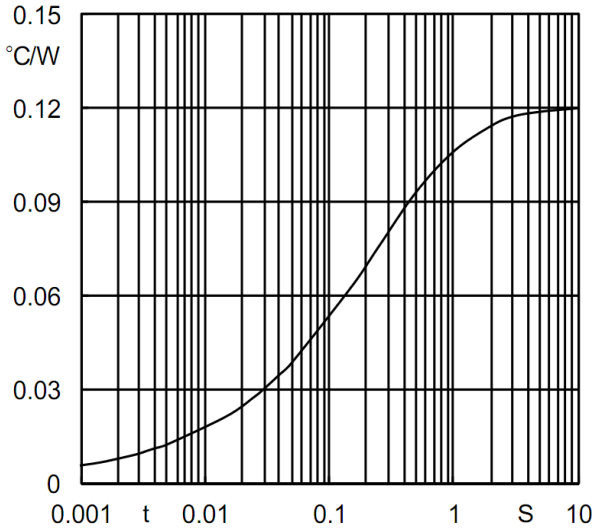


Fig2. Max. junction To case Thermai Impedance Vs Time

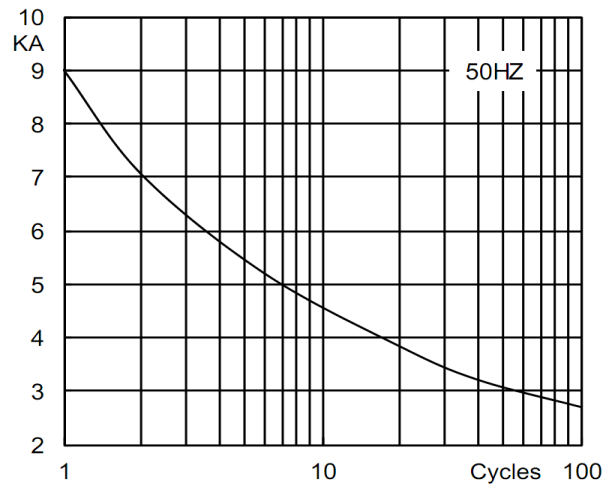


Fig3. Surge Current Vs Cycles

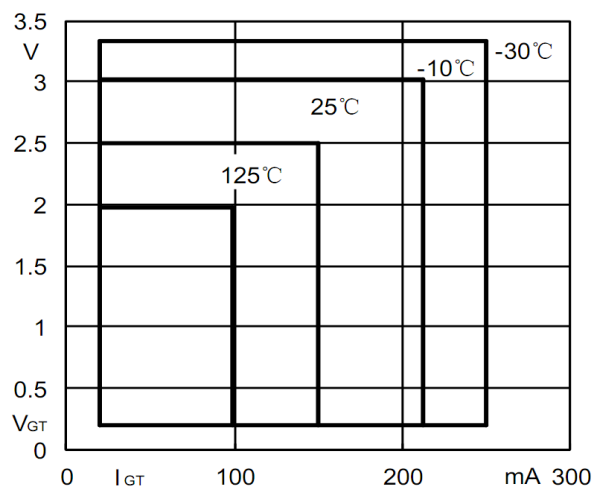


Fig4. Gate Trigger Zone at varies temperature

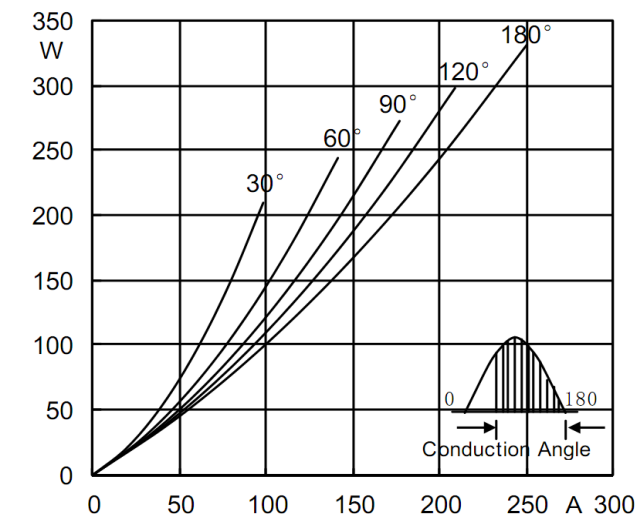


Fig5. Max. Power Dissipation Vs Mean On-state Current

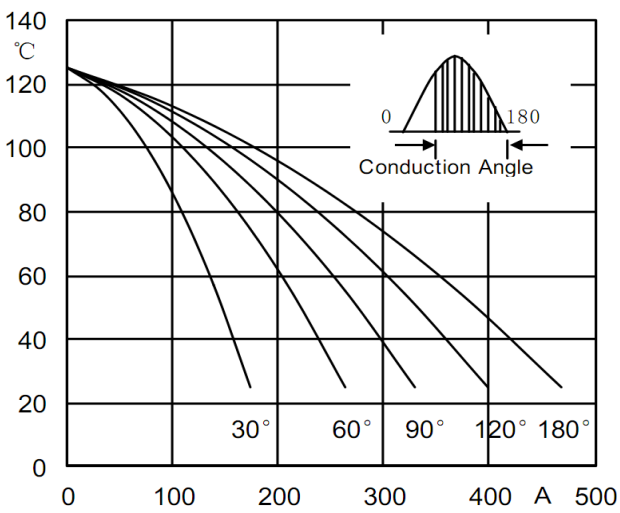


Fig6. Max case Temperature Vs Mean On-state Current

Ordering Information

Device	Packing
Part Number-BP	Bulk: 1PCS/BOX ;16PCS/CTN