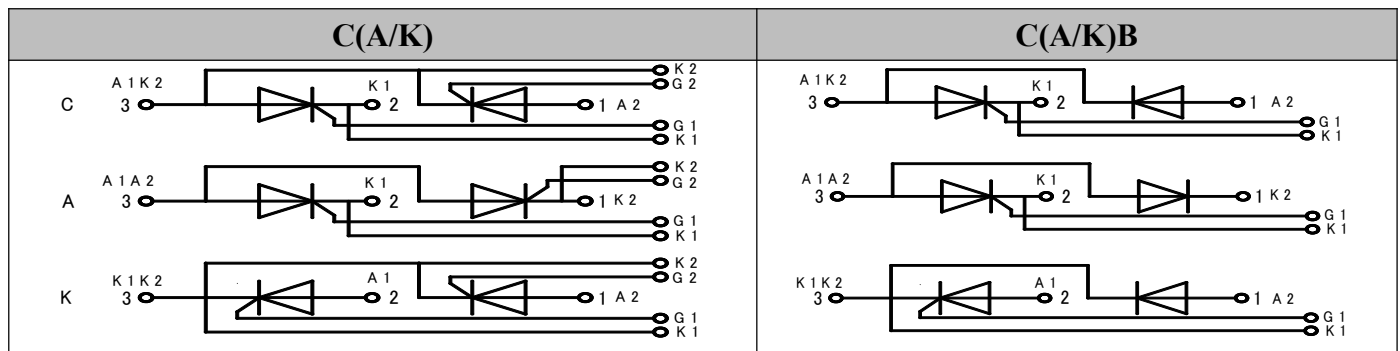


**Applications**

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

Features

- International standard package
- High Surge Capability
- Simple Mounting

Internal Circuit**Blocking - Off State**

TYPE		V _{DRM} /V _{RRM}	V _{DSM} /V _{RSM}	Units
MT1000C(A/K)20T9	MT1000C(A/K)B20T9	2000	2200	V
MT1000C(A/K)22T9	MT1000C(A/K)B22T9	2200	2400	V
MT1000C(A/K)25T9	MT1000C(A/K)B25T9	2500	2700	V

Maximum Ratings

Symbol	Conditions	Values	Units
I _{TAV}	Sine 180°; T _c =55℃	1000	A
	Sine 180°; T _c =95℃	500	A
I _{TSM}	T _{VJ} =125℃ t=10ms, sine	18000	A
I ² t	T _{VJ} =125℃ t=10ms, sine	1620000	A ² s
Visol	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(MAX)	3000	V
T _{vj}		-40 to 125	℃
T _{stg}		-40 to 125	℃
M _t	To terminals(M12)	12±15%	Nm
M _s	To heatsink(M8)	6±15%	Nm
di/dt	T _{VJ} = T _{VJM} , V _{DM} ≤2/3V _{DRM} , I _{GM} =1.5A t _r ≤1.5μs	100	A/μs
dv/dt	T _{VJ} = T _{VJM} , 2/3V _{DRM} , linear voltage rise	1000	V/μs
Weight	Module(Approximately)	4050	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per chip	0.048	℃/W
R _{th(c-h)}	per chip	0.02	℃/W



Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{TM}	$T=25^{\circ}\text{C}$ $I_{TM}=3000\text{A}$			1.8	V
I_{RRM}/I_{DRM}	$T_{VJ}=T_{VJM}$, $V=V_{RRM}$, $V=V_{DRM}$			70	mA
V_{TO}	$T_{VJ}=T_{VJM}$			0.85	V
r_T	$T_{VJ}=T_{VJM}$			0.24	m Ω
V_{GT}	$T_{VJ}=25^{\circ}\text{C}$, $V_D=12\text{V}$, $R_L=3\ \Omega$	0.8		2.5	V
I_{GT}	$T_{VJ}=25^{\circ}\text{C}$, $V_D=12\text{V}$, $R_L=3\ \Omega$	30		150	mA
I_L	$T_{VJ}=25^{\circ}\text{C}$, $V_D=12\text{V}$, $R_L=3\ \Omega$			1000	mA
I_H	$T_{VJ}=25^{\circ}\text{C}$, $V_D=12\text{V}$, $R_L=3\ \Omega$	20		150	mA
V_{GD}	$T_{VJ}=T_{VJM}$, $V_{DM}=67\%V_{DRM}$	0.2			V

Performance Curves

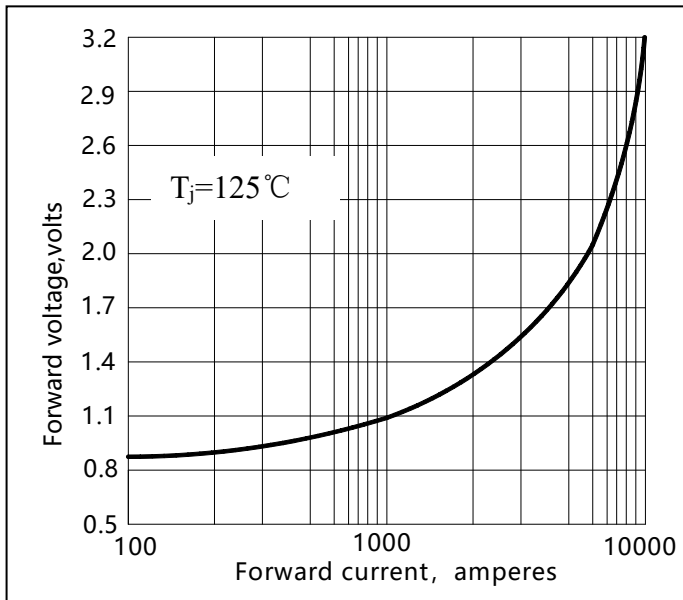


Fig1. Peak On-state Voltage Vs Peak On-state

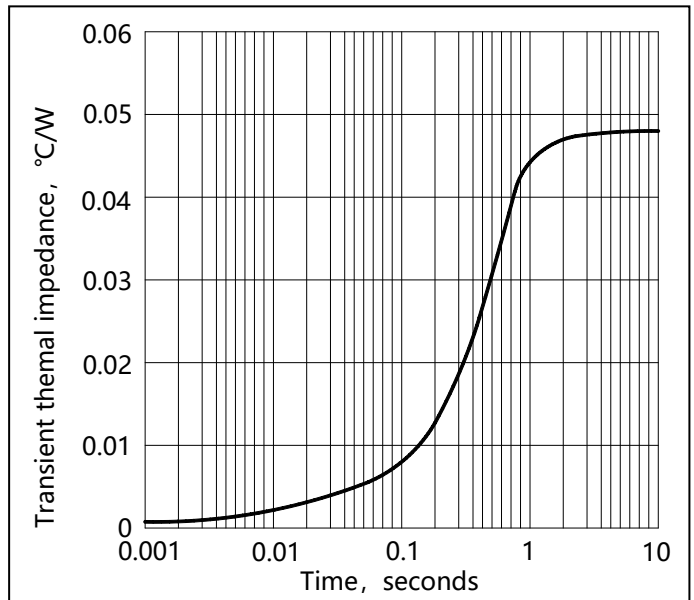


Fig2. Max. junction To case Thermal Impedance Vs Time

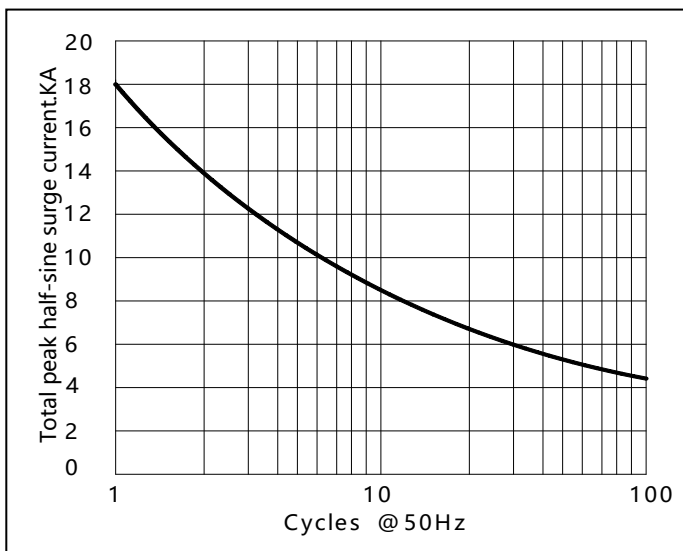


Fig3. Surge Current Vs Cycles

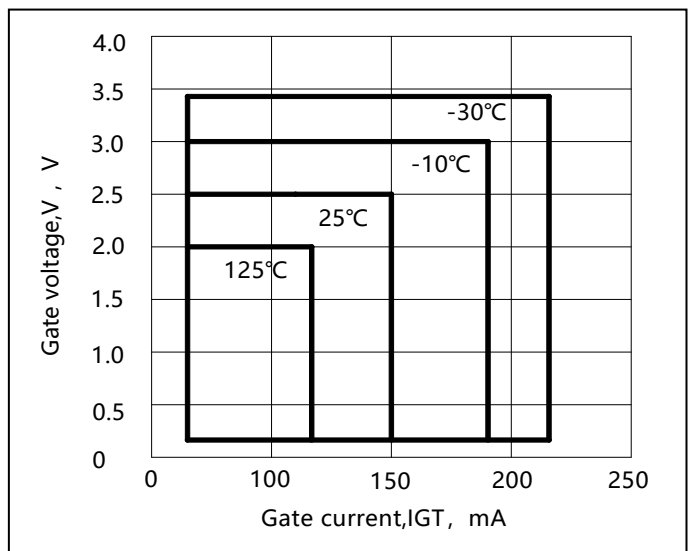


Fig4. Gate Trigger Zone Vs temperature

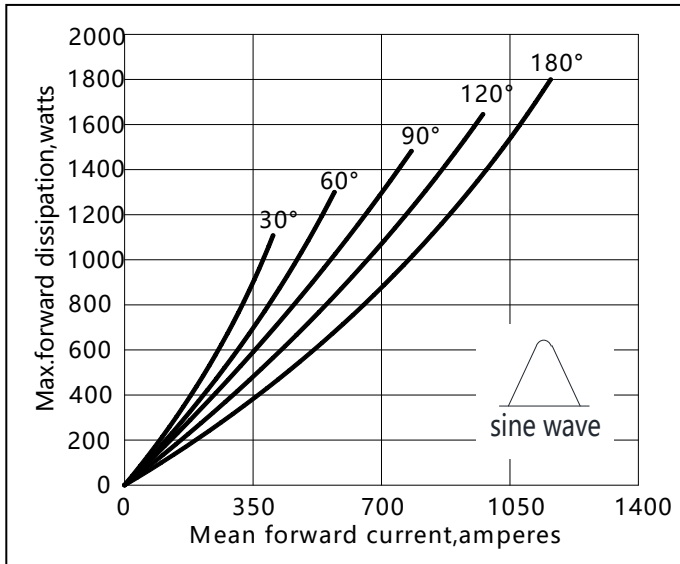


Fig5. Max. Power Dissipation Vs Mean On-state Current

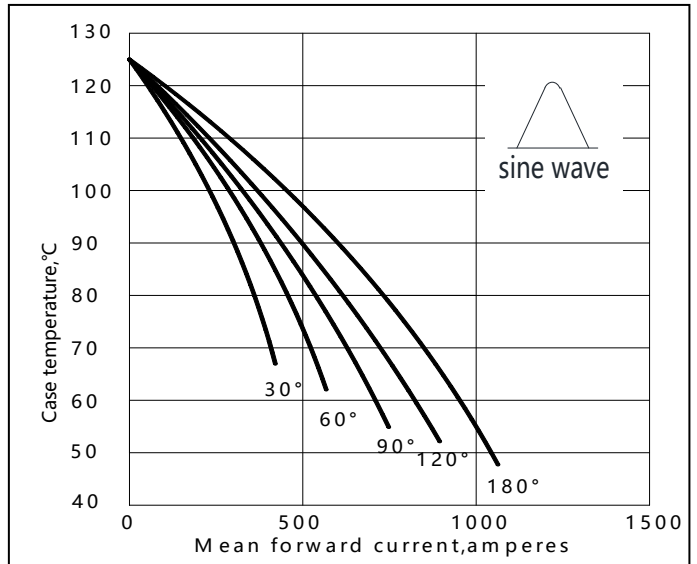
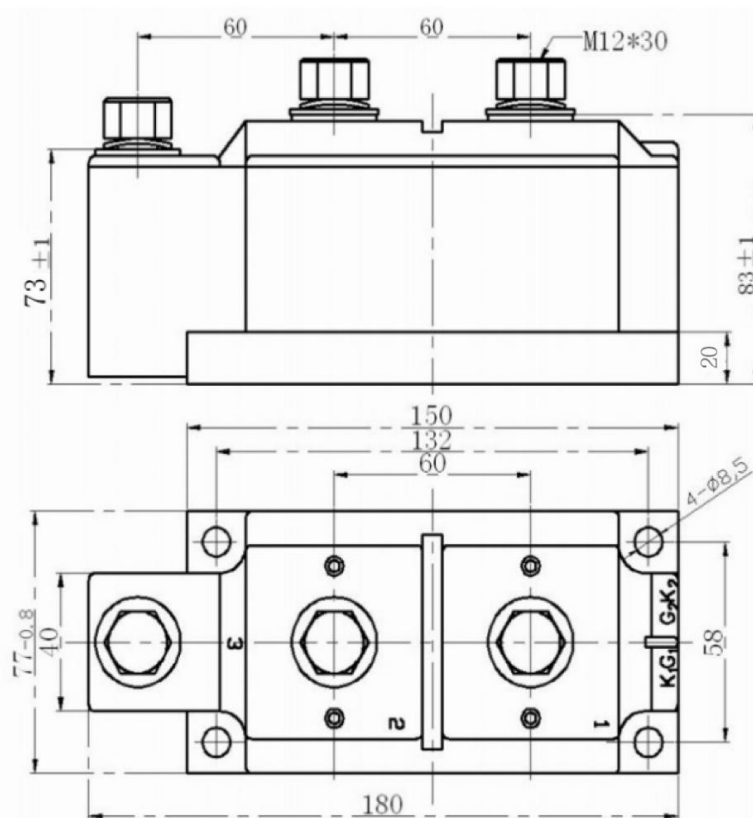


Fig6. Max case Temperature Vs Mean On-state Current

Package Outline Information

CASE:T9



Dimensions in mm

Unmarked dimensional tolerance: $\pm 0.5\text{mm}$



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function, or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.21yangjie.com>, or consult your nearest Yangjie's sales office for further assistance.