



## Typical Application

DC motor control, temperature control and light control system.

## Absolute Maximum Ratings (Packaged into modules, unless otherwise specified, $T_{CASE}=25$ )

Parameter	Test Conditions	Symbol	Values			Unit
			12	16	18	
Storage temperature range		$T_{stg}$	-40~125			
Repetitive peak off-state voltage	$T_j=25$	$V_{DRM}$	1200	1600	1800	
Repetitive peak reverse voltage						

Average on-state current	$T_C=85$	$I_{T(AV)}/I_{F(AV)}$	250			A
Peak on-state surge current	$t_P=10ms$ $V_R=0.6V_{RRM}$	$I_{TSM}/I_{FSM}$	8300			A
$I^2t$ value for fusing	$t_P=10ms$ $V_R=0.6V_{RRM}$	$I^2t$	344450			$A^2s$
Critical rate of rise of on-state current	$I_G=2 \times I_{GT}$	$di/dt$	150			$A/\mu s$
Insulation voltage	A.C 50Hz(1s/1min)	$V_{ISO}$	3600/3000			V

## Electrical Characteristics (Packaged into modules, unless otherwise specified, $T_{CASE}=25$ )

Parameter	Test Conditions	Symbol	Values	Unit
Peak on-state voltage	$I_T=750A$ $t_P=380\mu s$	$V_{TM}$	1.8	V
Threshold voltage	$T_j=125$	$V_{TO}$	0.85	V
Dynamic resistance				

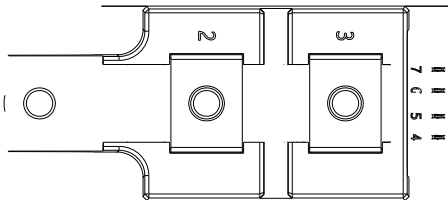
TELj ] tm 8 6 7 U g thY ] b g i ` U t] ob .

m welding technology, which provide high reliability.

Repetitive peak reverse current	$V_R=V_{RRM}$	$I_{RRM1}$	100	$\mu A$
	$T_C=25$ $T_C=125$	$I_{RRM2}$	100	mA
Triggering gate current	$V_D=12V R_L=30$	$I_{GT}$	20-150	mA
Holding current	$I_T=1A$	$I_H$	300	mA
Latching current	$I_G=1.2I_{GT}$	$I_L$	400	mA
Triggering gate voltage	$V_D=12V R_L=30$	$V_{GT}$	1.8	V
Non triggering gate voltage	$V_D=0.5V_{DRM} T_j=125$	$V_{GD}$	0.25	V
Critical rate of rise of voltage	$V_D=2/3V_{DRM} T_j=125$ Gate Open	dv/dt	1000	V/ $\mu s$
Thermal resistance	Junction to case	$R_{th(j-c)}$	0.14	$^{\circ}W$
	Case to heatsink	$R_{th(c-s)}$	0.05	

### Mechanical Characteristics

Module size	115mmx50mm
Module height	53mm
Terminal distance of (1)/(2)/(3)	42.5mm/35mm/23.5mm
Mounting torque(M5)	$5 \pm 15\% Nm$
Terminal torque(M8)	$9 \pm 15\% Nm$

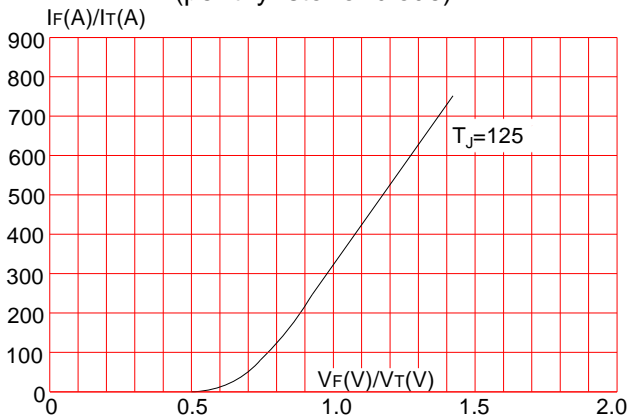




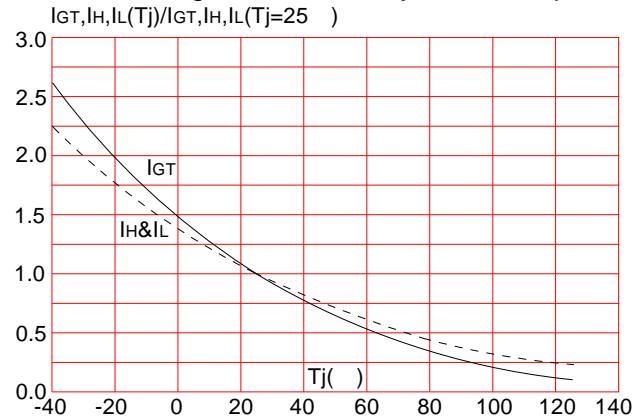
## Instructions and Precautions

- 1) There is no severe vibration and shock in operating environment, and there should be no impurity and atmosphere which may corrode metal and damage the insulation in the air-dielectric.
- 2) The operating condition of the product can't out of range of the above parameters.
- 3) When the product is installed on the radiator, the radiator's surface should be confirmed flat, smooth, wipe clean with alcohol, and coated evenly with a layer of thermal grease which thickness is moderate on the contact surface between product and radiator. When the module is fastened on the surface of the radiator, the M5 or M6 screw is used to fasten the radiator.

**FIG.3:**Forward characteristics  
(per thyristor or diode)



**FIG.4:** Relative variations of gate trigger current, holding current and latching current versus junction temperature




Information furnished in this document is believed to be accurate and reliable. However, JieJie Semiconductor Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information.

This document is the 1.1st version which is made in 23-May-2024. This document supersedes and replaces all information previously supplied.

 is registered trademarks of JieJie Semiconductor Co., Ltd. Copyright©2024 Semiconductor Co., Ltd. Printed All rights reserved.