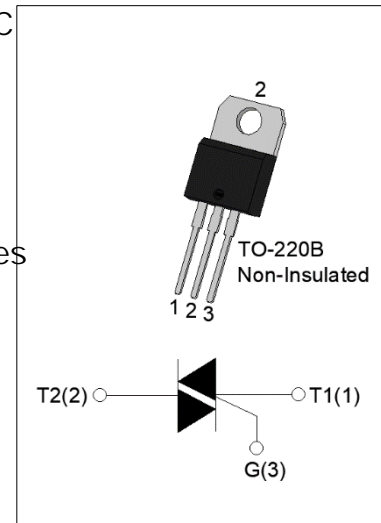


**DESCRIPTION:**

The T3050H6B-US triac is suitable for general purpose AC switching. It can be used as an ON/OFF switch in applications such as heating regulation, induction motor starting circuits, light dimmers, motor speed controllers. Compared to traditional triacs, T3050H6B-US provides a very high switching capability up to junction temperatures of 150°C. Package TO220B is RoHS compliant.



MAIN FEATURES	FE	Unit
$I_{T(RMS)}$	30	A
$V_{DRM}/V_{RRM}$	600	V
$I_{GT} / /$	50/50/50	mA

**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Value	Unit
Storage junction temperature range	$T_{stg}$	-40/150	
Operating junction temperature range	$T_j$	-40/150	
Repetitive peak off-state voltage ( $f=25$ )	$V_{DRM}$	600	V
Repetitive peak reverse voltage ( $f=25$ )	$V_{RRM}$	600	V
RMS on-state current ( $T=119$ )	$I_{T(RMS)}$	30	A
Non repetitive surge peak on-state current (full cycle, $t_p \leq 20ms$ , $f=25$ )	$I_{TSM}$	270	A
Non repetitive surge peak on-state current (full cycle, $t_p \leq 16.6ms$ , $f=25$ )		297	
$I^2t$ value for fusing ( $t_p=10ms$ , $T=25$ )	$I^2t$	365	$A^2s$
Critical rate of rise of on-state current ( $I_G=2 \times I_{GT}$ , $f=100Hz$ , $T_j=150$ )	$di/dt$	100	$A/s$
Peak gate current ( $t_p=20s$ , $T_j=150$ )	$I_{GM}$	4	A
Average gate power dissipation ( $T=150$ )	$P_{G(AV)}$	1	W



Peak gate power	$P_{GM}$	10	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.7)	$V_{pp}$	1.2	kV

ELECTRICAL CHARACTERISTICS ( $T_j=25$  unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D = 12V$ $R_L = 33$	- -	MAX.	50	mA
$V_{GT}$		- -	MAX.	1.3	V
$V_{GD}$	$V_D = V_{DRM}$ $T_j = 150$ $R_L = 3.3K$	- -	MIN.	0.15	V

 $I_L$  |



ORDERING INFORMATION

MARKING

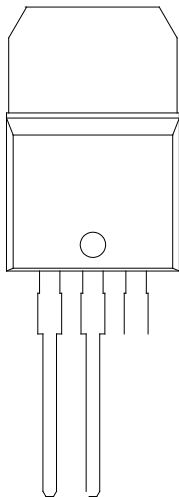


FIG.1 Maximum power dissipation versus RMS on-state current

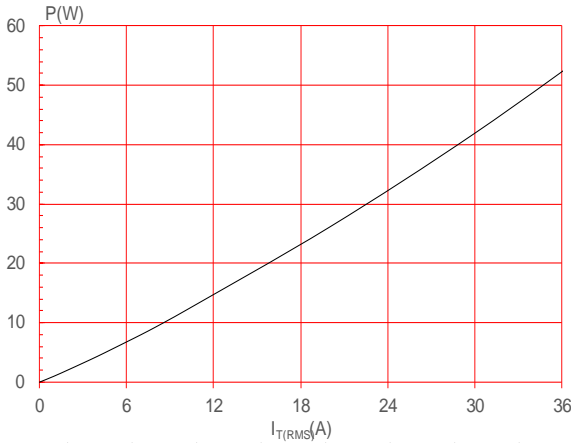


FIG.2: RMS on-state current versus case temperature

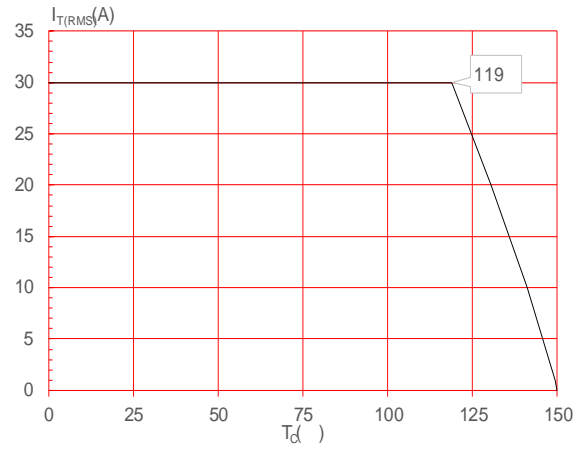


FIG.3: Surge peak onstate current versus number of cycles

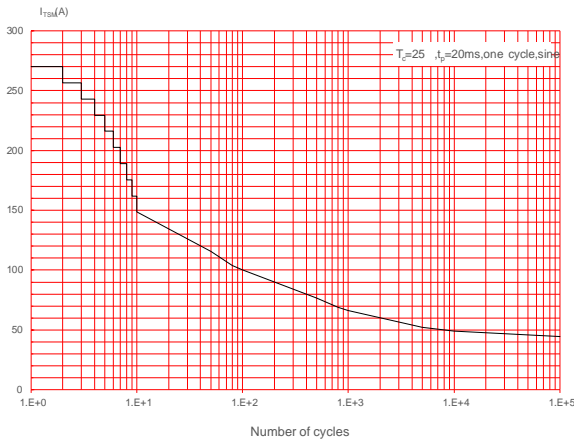


FIG.4: On-state characteristics

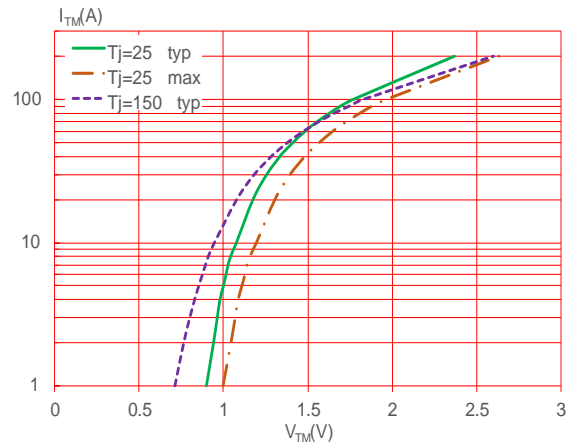


FIG.5: Non-repetitive surge peak onstate current for a sinusoidal pulse with width  $t_p < 20\text{ms}$ , and corresponding value of  $I^2t$  ( $di/dt < 100\text{A/s}$ )

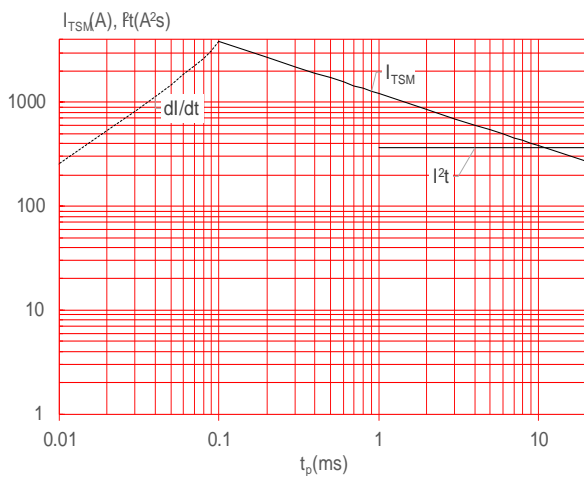


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

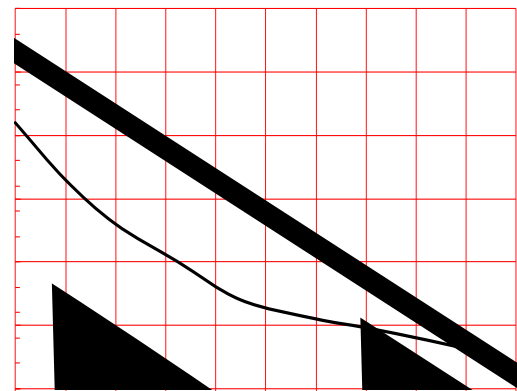
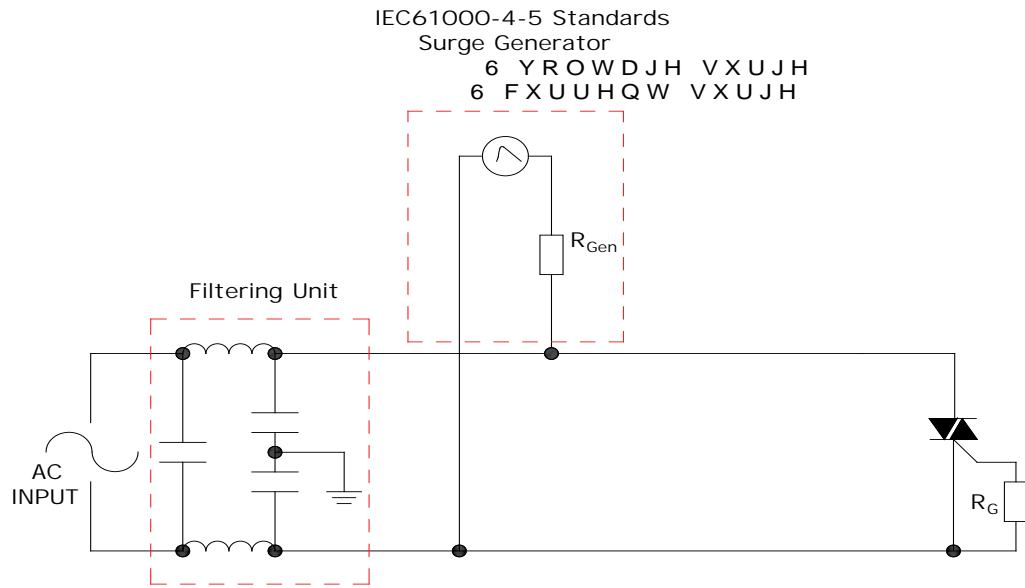


FIG.7 Test circuit for inductive and resistive loads according to IEC-61000-4-5 standards



## LEAD FORMING AND SOLDERING

Refer to the application note Assembly Instructions for Thyristors in Through-Package released by JieJie Microelectronics

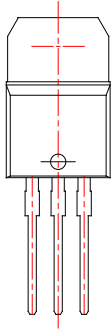
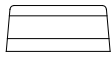


## ORDERING INFORMATION

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT (mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T3050H6B-US	600	50	TO-220B	50	Tube



# PACKAGE MECHANICAL DATA





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