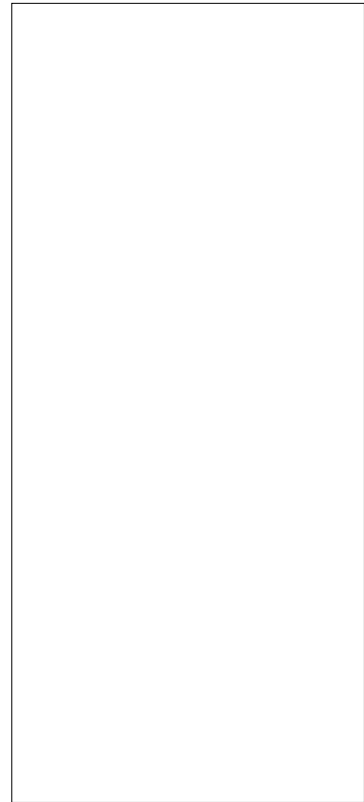




JCT812TF silicon controlled rectifier is specifically designed for medium power switching and phase control applications. High current density due to mesa technology; SIPOS and Glass Passivation technology used has reliable operation up to 125 °C junction temperature. Low I_{GT} parts available. From all three terminals to



Peak gate current ($t_p=20\mu s$, $T_j=125$)	I_{GM}	4	A
Average gate power dissipation ($T_j=125$)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage ($T_j=25$; non-repetitive,off-state;FIG.7)	V_{pp}	0.5	kV

($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	$V_D=12V R_L=33\Omega$	-	-	5	mA
V_{GT}		-	-	1	V
V_{GD}	$V_D=V_{DRM} T_j=125 R_L=3.3K\Omega$	0.2	-	-	V
I_L	$I_G=1.2I_{GT}$	-	-	30	mA
I_H	$I_T=500mA$	-	-	15	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$	200	-	-	V/ μs
t_{on}	$I_G=20mA I_A=200mA I_R=20mA$ $T_j=25$	-	5	-	μs
t_{off}		-	80	-	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=24A t_p=380\mu s$	$T_j=25$	1.5	V
V_{TO}	Threshold voltage	$T_j=125$	0.8	V
R_D	Dynamic resistance	$T_j=125$	27	m Ω
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	μA
I_{RRM}		$T_j=125$	0.25	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case(DC)	2.5	$\backslash W$
$R_{th(j-a)}$	junction to ambient (DC)	70	$\backslash W$

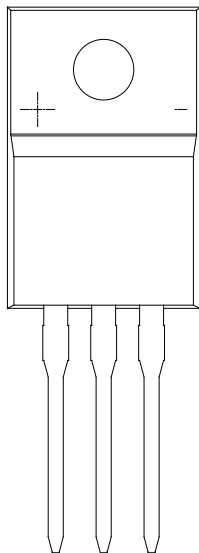
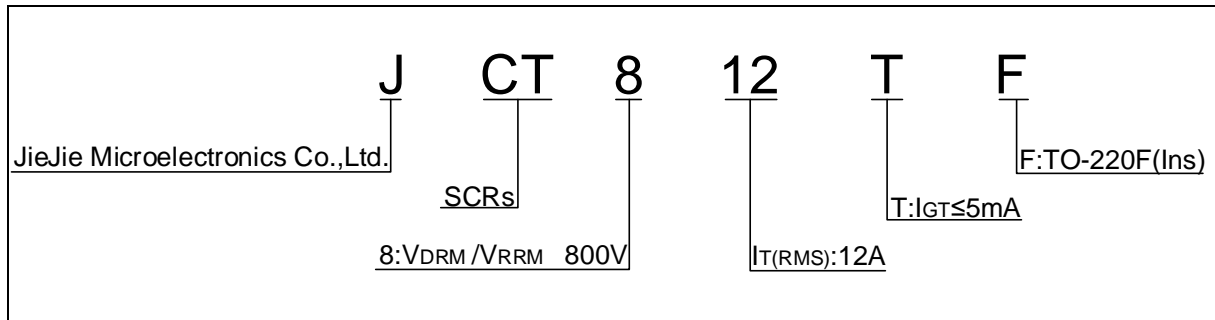


FIG.1 Maximum power dissipation versus RMS on-state current

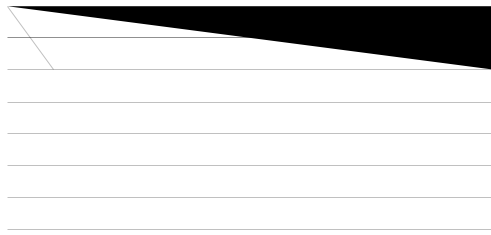
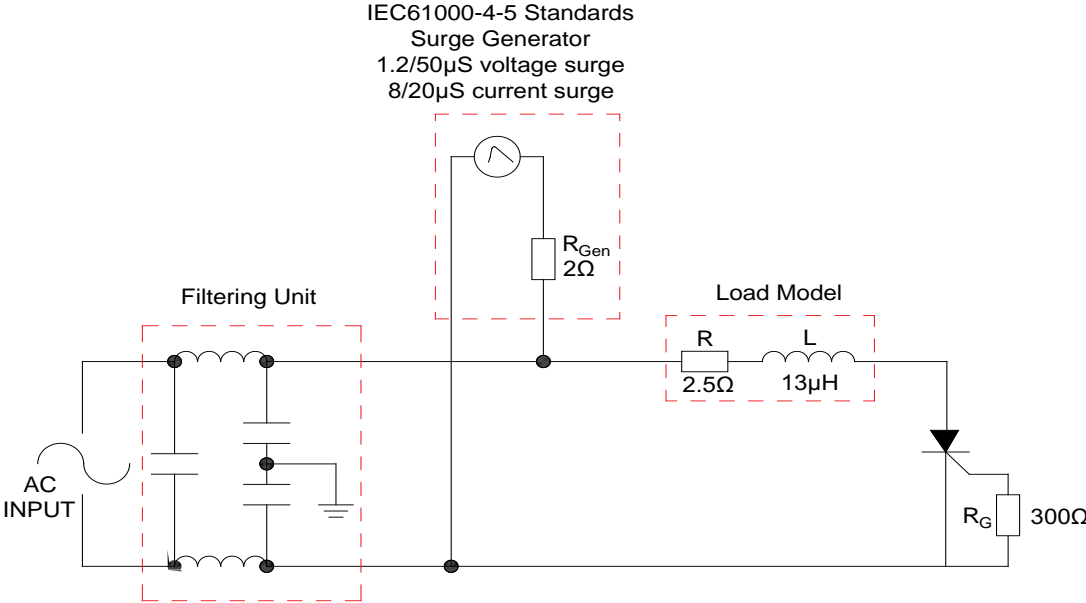


FIG.2: RMS on-state current versus case temperature



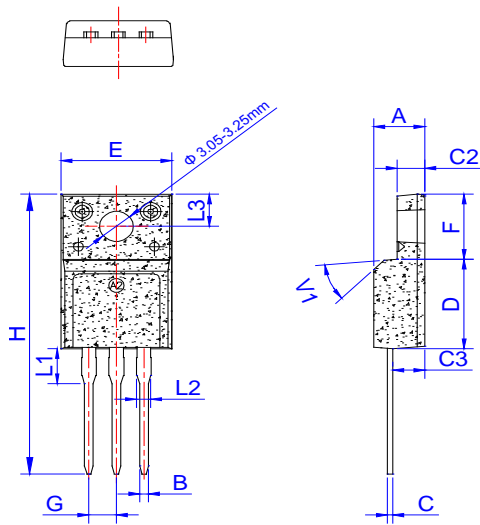
FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



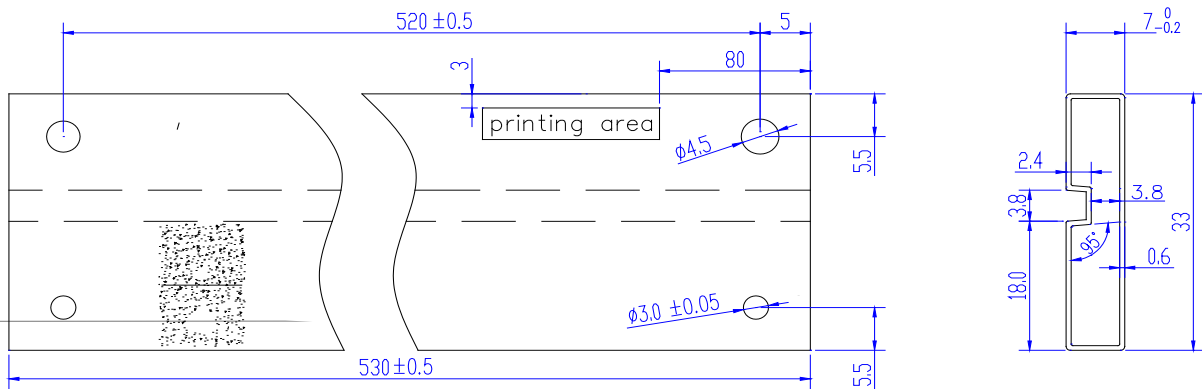
Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT812TF	800	5	TO-220F(Ins)	50	Tube

Document Revision History


Date	Revision	Changes
Apr.13, 2023	A.1.0	Last update



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50		4.90	0.177		0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.80		10.4	0.386		0.410
F	6.40		6.80	0.252		0.268
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1	3.20		3.80	0.126		0.150
L2	1.14		1.70	0.045		0.067
L3	3.20		3.60	0.126		0.142
V1		45°			45°	



Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics 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, Jiangsu JieJie complies with the agreement. Products and information provided in this document have no infringement of patents. Jiangsu 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 supersedes and replaces all information previously supplied.

 is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd. Copyright ©2023 Jiangsu JieJie Microelectronics Co., Ltd. Printed All rights reserved.