

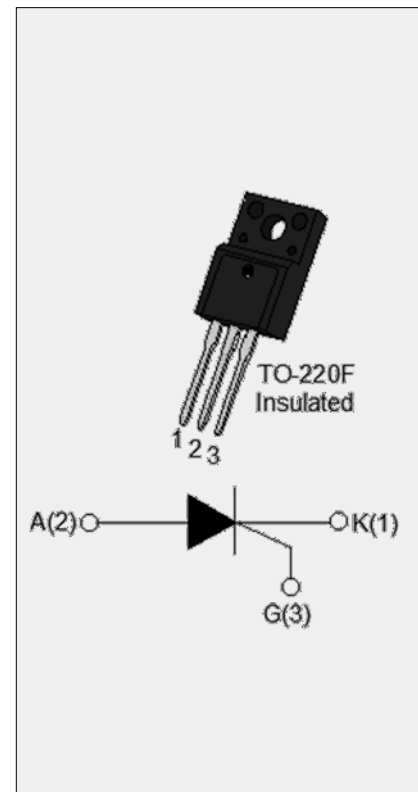


## DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT1625F SCR provides high  $dV/dt$  rate with strong resistance to electromagnetic interference. It is especially recommended for use on solid state relay, motorcycle, power charger, T-tools etc. From all three terminals to external heatsink, JCT1625F provides a rated insulation voltage of  $2000 V_{RMS}$ , complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.

## MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	25	A
$V_{DRM}/V_{RRM}$	1600	V
$I_{GT}$	40	mA



## ABSOLUTE MAXIMUM RATINGS

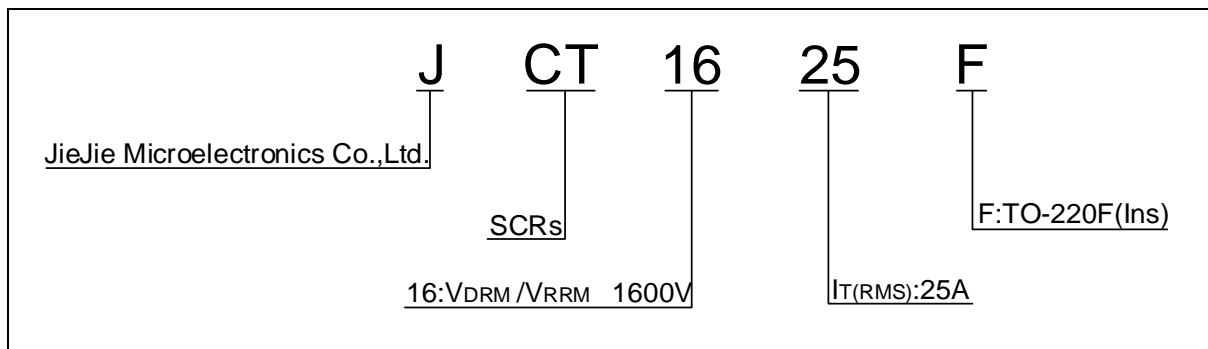
Storage junction temperature range	$T_{stg}$	-40-150	$^{\circ}C$
Operating junction temperature range	$T_j$	-40-125	$^{\circ}C$
Repetitive peak off-state voltage ( $T_j=25^{\circ}C$ )	$V_{DRM}$	1600	V
Repetitive peak reverse voltage ( $T_j=25^{\circ}C$ )	$V_{RRM}$	1600	V
Average on-state current ( $T_c \leq 46^{\circ}C$ )	$I_{T(AV)}$	16	A
RMS on-state current ( $T_c \leq 46^{\circ}C$ )	$I_{T(RMS)}$	25	A
Non repetitive surge peak on-state current ( $t_p=10ms, T_j=25^{\circ}C$ )	$I_{TSM}$	280	A
Non repetitive surge peak on-state current ( $t_p=8.3ms, T_j=25^{\circ}C$ )		300	
$I^2t$ value for fusing ( $t_p=10ms, T_j=25^{\circ}C$ )	$I^2t$	392	$A^2s$
Critical rate of rise of on-state current ( $I_G=2 \times I_{GT}, f=100Hz, T_j=125^{\circ}C$ )	$di/dt$	200	$A/\mu s$



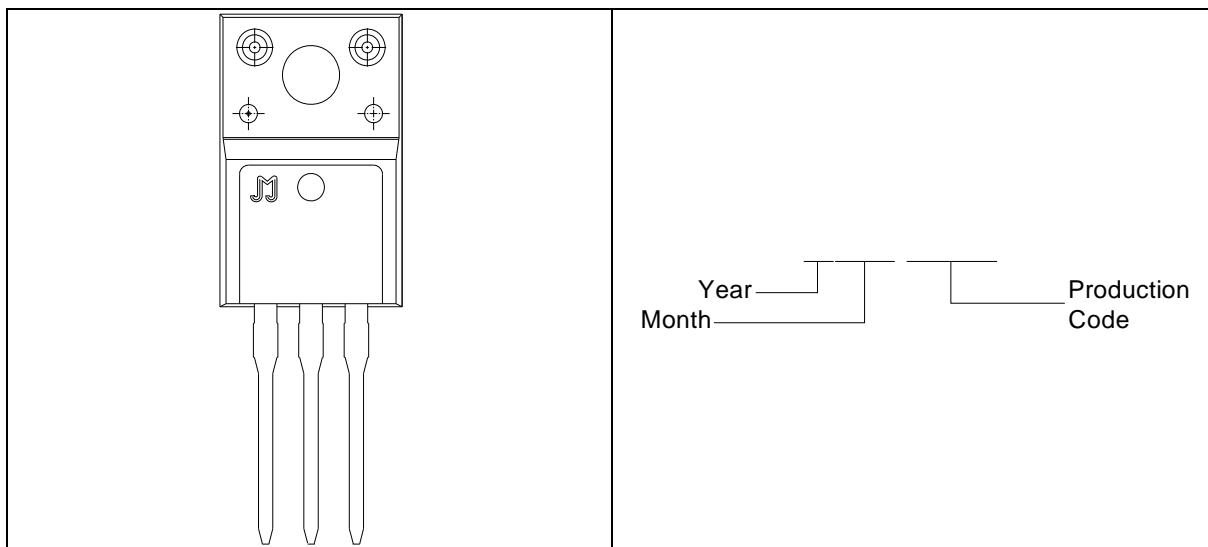
Peak gate current ( $t_p=20\mu s$ , $T_j=125^\circ C$ )	$I_{GM5}$	5	A
$8 \mu A$			



## ORDERING INFORMATION

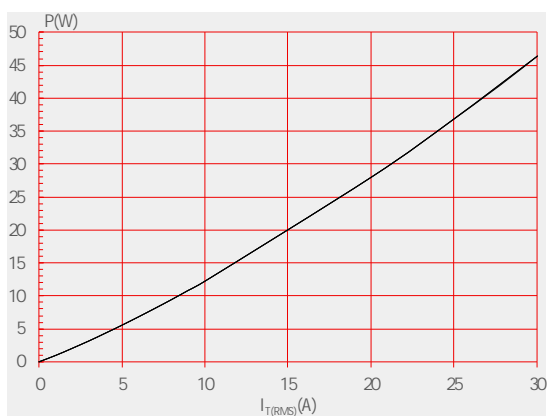


## MARKING

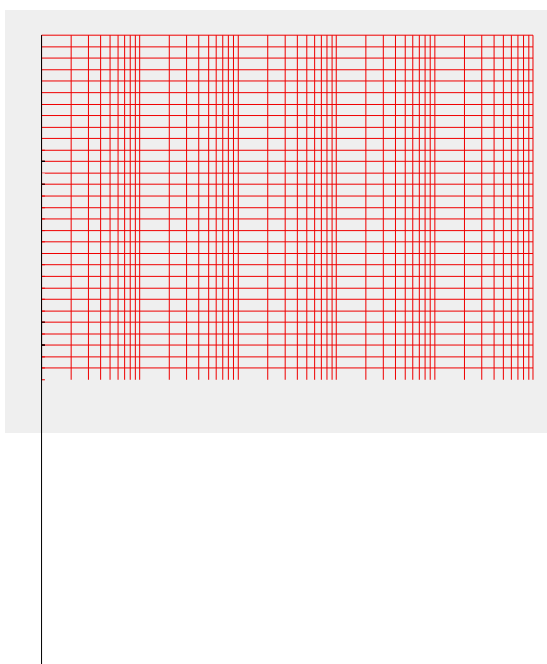




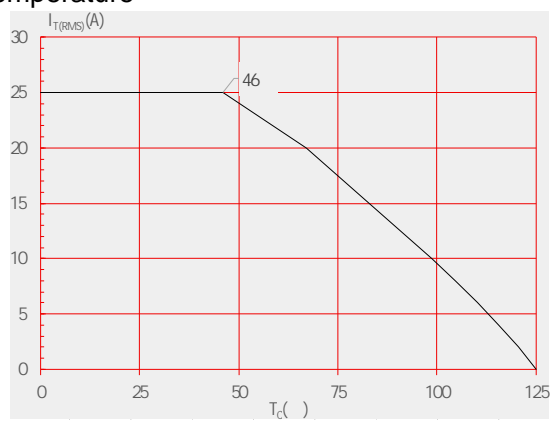
Maximum power dissipation versus RMS on-state current



Surge peak on-state current versus number of cycles



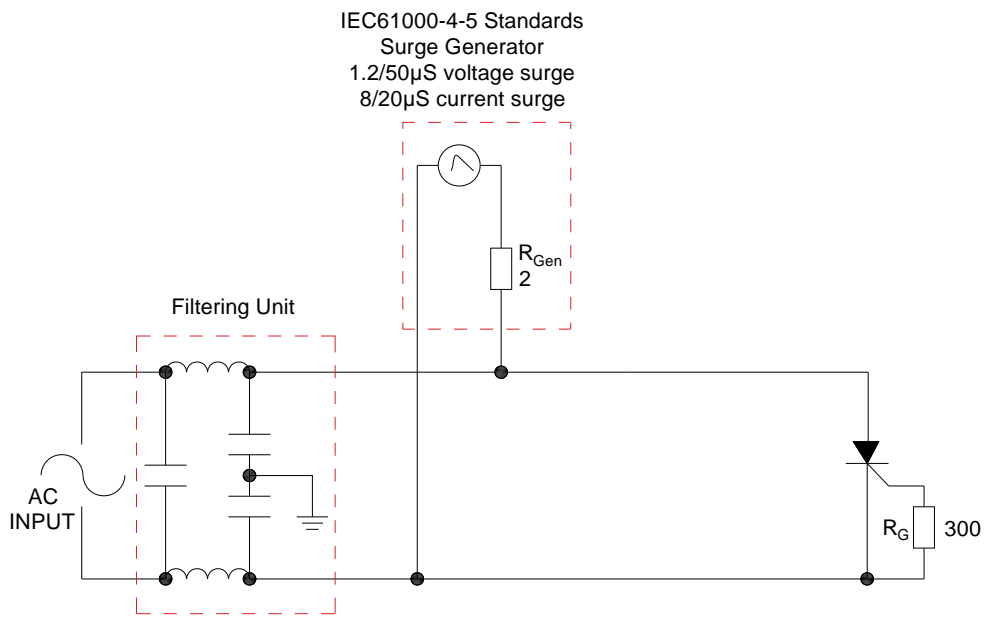
RMS on-state current versus case temperature



On-state characteristics



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



## SHAPING AND SOLDERING PARAMETERS

Refer to «Instructions for installation of plastic-sealed in-line power devices» released by JieJie



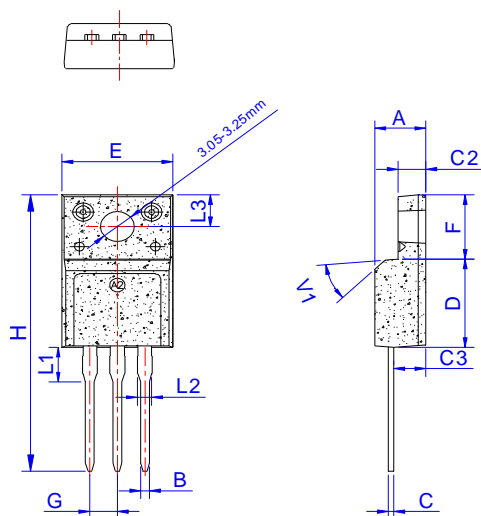
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## ORDERING INFORMATION


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

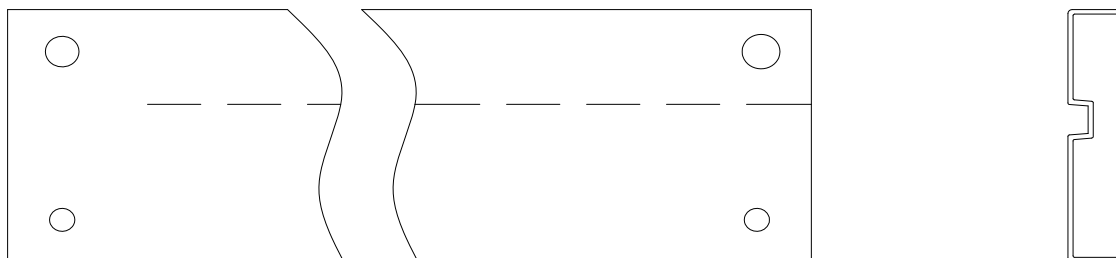


## PACKAGE MECHANICAL DATA




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°	

## DELIVERY MODE





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