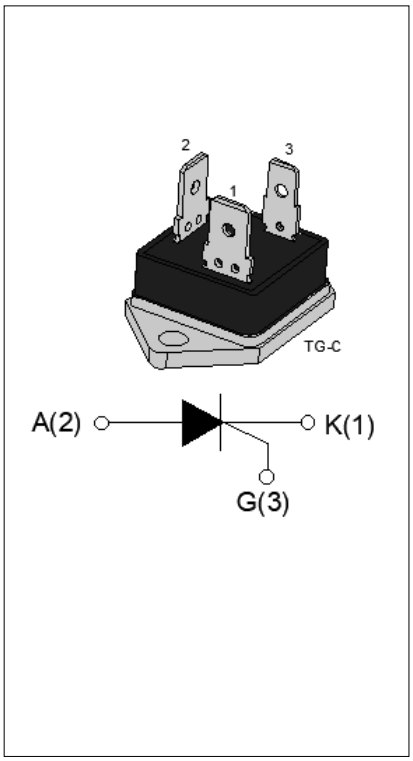
JCT1675T 75A SCR

Rev.A.1.0

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT1675T SCR provides high dV/dt rate with strong resistance to electromagnetic interference.It is especially recommended for use on solid state relay, UPS, SVC, power charger, T-tools etc.complying with UL standards (File ref: E252906).Package TG-C is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	75	A
V_{DRM}/V_{RRM}	1600	V
I_{GT}	10-80	mA

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	1600	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	1600	V
Average on-state current ($T_C \leq$ 68)	$I_{T(AV)}$	48	A
RMS on-state current ($T_C \leq$ 68)	$I_{T(RMS)}$	75	A
Non repetitive surge peak on-state current (t_p=10ms, T_j=25)	I_{TSM}	700	A
Non repetitive surge peak on-state current (t_p=8.3ms, T_j=25)		750	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	2450	A^2s
Critical rate of rise of on-state current (I_G=2 I_{GT}, f=100Hz , T_j=125)	dI/dt	200	A/μs

Peak gate current (t_p=20μs , T_j=125)	I_{GM}	12	A
Average gate power dissipation (T_j=125)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	22	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	1	kV

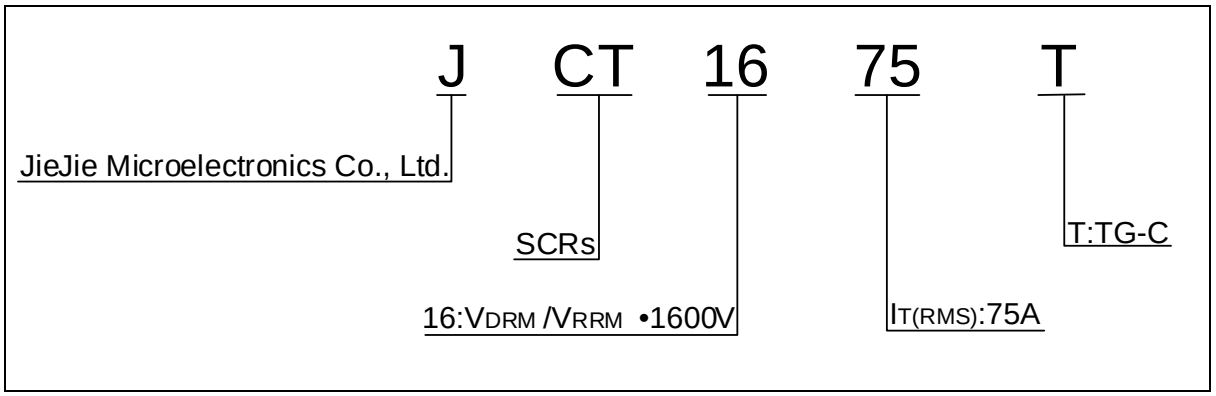
ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	V_D=12V R_L=33Ω	10	-	80	mA
V_{GT}		-	-	1.3	V
V_{GD}	V_D=V_{DRM} T_j=125 R_L=3.3kΩ	0.25	-	-	V
I_L	I_G=1.2I_{GT}	-	-	250	mA
I_H	I_T=500mA	-	-	200	mA
dV/dt	V_D=1070V Gate Open T_j=125	2000	-	-	V/μs

t_{on} I

=10mA =100mA

ORDERING INFORMATION



MARKING

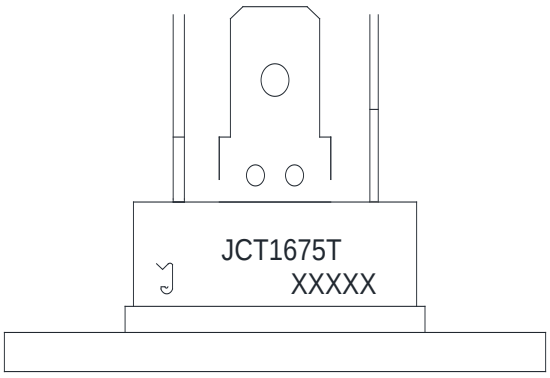


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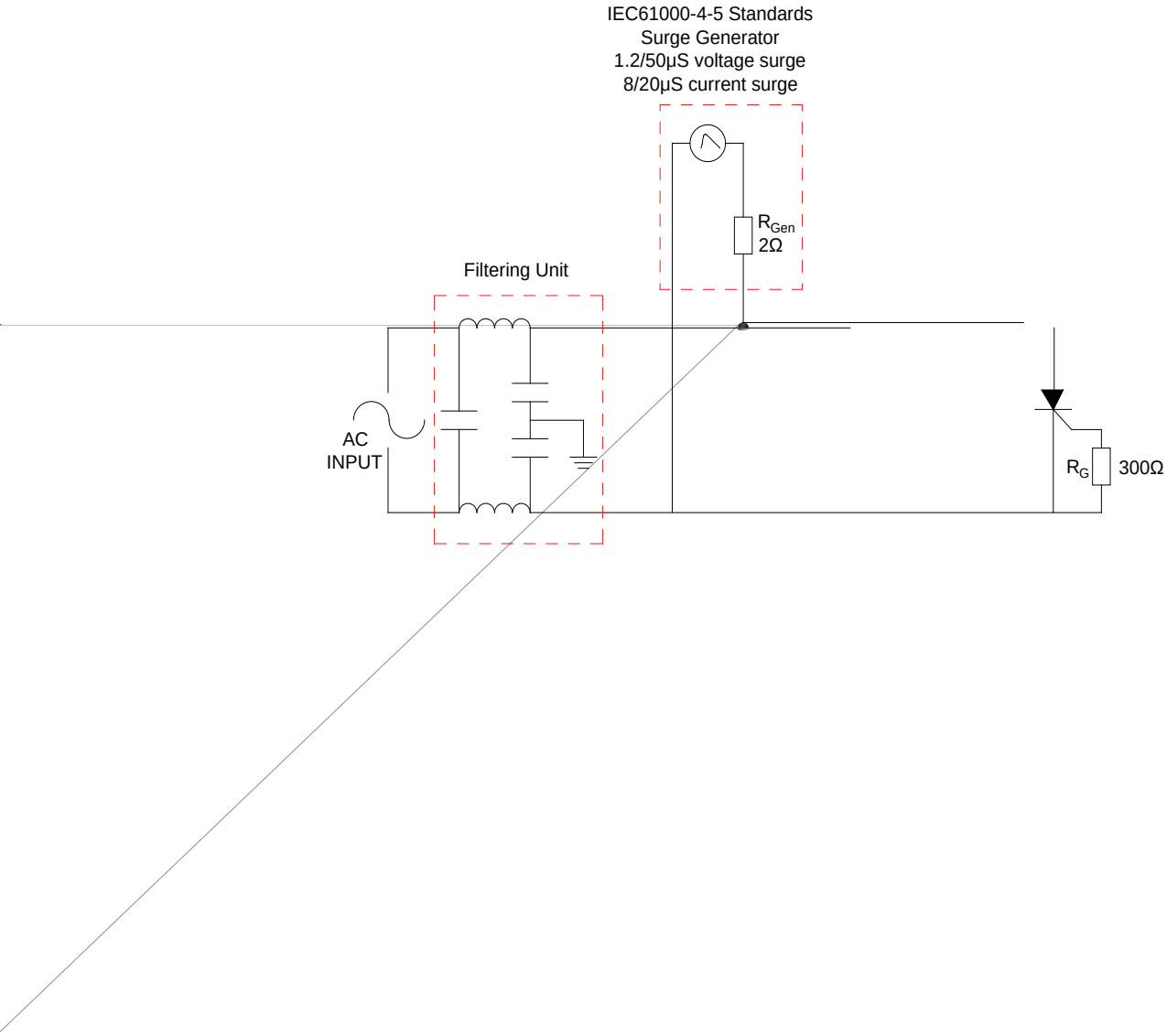
FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT1675T	1600	10-80	TG-C	10	Tube

Document Revision History

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

PACKAGE MECHANICAL DATA

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.
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