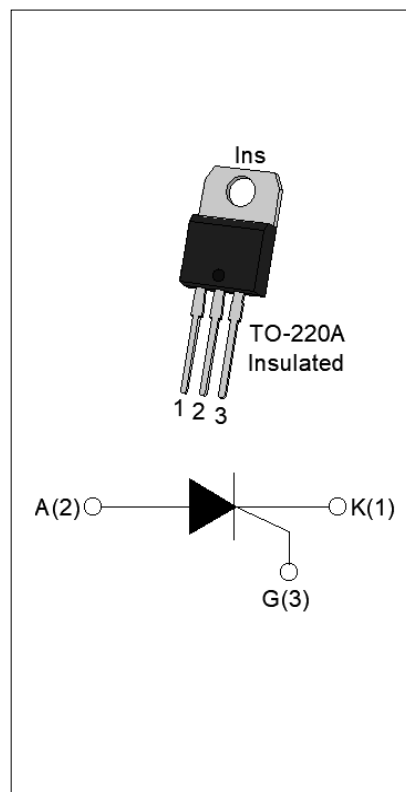




With high ability to withstand the shock loading of large current, JCT1225A SCR provides high dV/dt rate with strong resistance to electromagnetic interference. It is especially recommended for use on solid state relay, motorcycle, power charger, T-tools etc. From all three terminals to external heatsink, JCT1225A provides a rated insulation voltage of 2500 V<sub>RMS</sub>, complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.

Symbol	Value	Unit
I <sub>T(RMS)</sub>	25	A
V <sub>DRM</sub> /V <sub>RRM</sub>	1200	V
I <sub>GT</sub>	40	mA



Parameter	Symbol	Value	Unit
Storage junction temperature range	T <sub>stg</sub>	-40-150	°C
Operating junction temperature range	T <sub>j</sub>	-40-125	°C
Repetitive peak off-state voltage (T <sub>j</sub> =25°C)	V <sub>DRM</sub>	1200	V
Repetitive peak reverse voltage (T <sub>j</sub> =25°C)	V <sub>RRM</sub>	1200	V
Average on-state current (T <sub>c</sub> ≤64°C)	I <sub>T(AV)</sub>	16	A
RMS on-state current (T <sub>c</sub> ≤64°C)	I <sub>T(RMS)</sub>	25	A
Non repetitive surge peak on-state current (t <sub>p</sub> =10ms, T <sub>j</sub> =25°C)	I <sub>TSM</sub>	320	A
Non repetitive surge peak on-state current (t <sub>p</sub> =8.3ms, T <sub>j</sub> =25°C)		352	
I <sup>2</sup> t value for fusing (t <sub>p</sub> =10ms, T <sub>j</sub> =25°C)	I <sup>2</sup> t	512	A <sup>2</sup> s
Critical rate of rise of on-state current (I <sub>G</sub> =2 I <sub>GT</sub> , f=100Hz, T <sub>j</sub> =125°C)	di/dt	200	A s

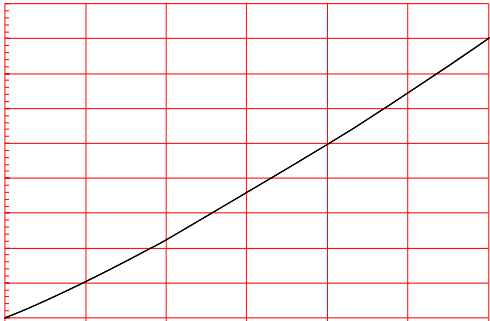
Peak gate current ( $t_p=20\text{ s}$ , $T_j=125^\circ\text{C}$ )	$I_{GM}$	5	A
Average gate power dissipation ( $T_j=125^\circ\text{C}$ )	$P_{G(AV)}$	1	W
Peak gate power			
Peak pulse voltage ( $T_j=25^\circ\text{C}$ ; non-repetitive, off-state; FIG.7)			

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	M/0.0X (o5)]TJ	
					0 Tc 0 Tw 2.1

J   CT   12   25   A

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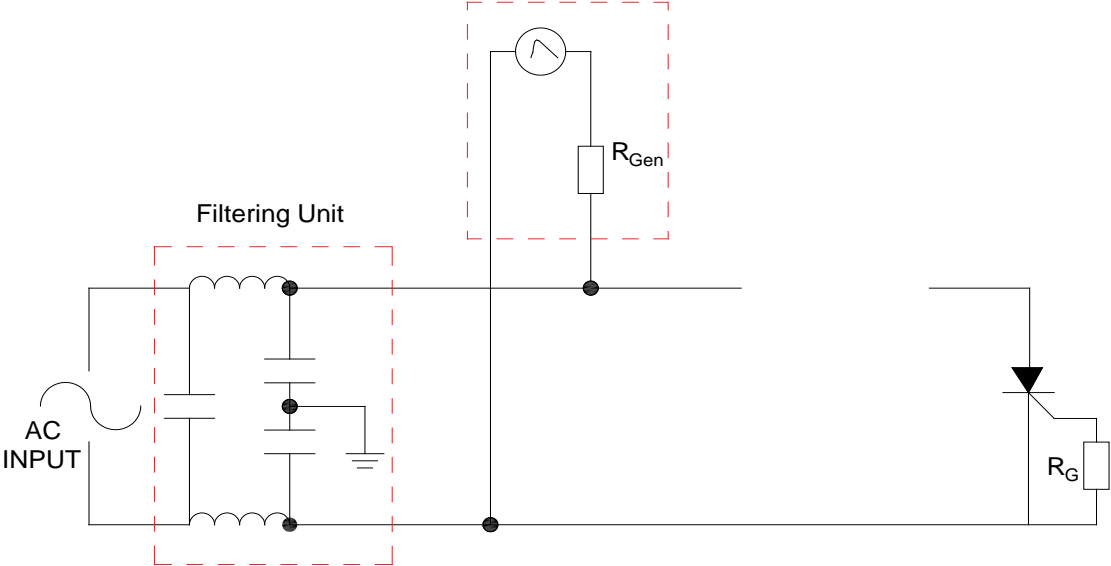
**FIG.1** Maximum power dissipation versus RMS on-state current



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

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

IEC61000-4-5 Standards  
Surge Generator



Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT1225A	1200	40	TO-220A(Ins)	50	Tube

**Document Revision History**

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



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