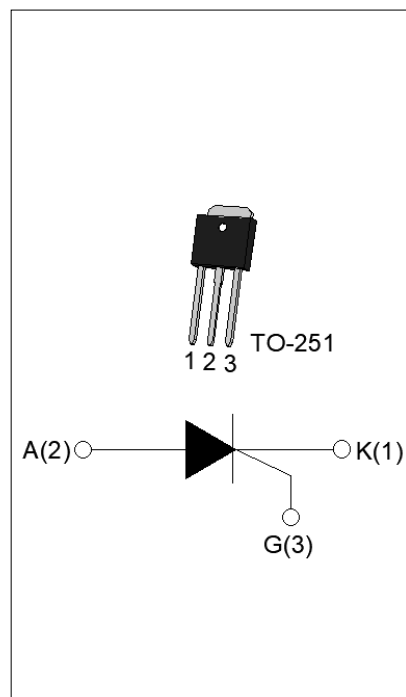




With high ability to withstand the shock loading of large current, JCT812H of silicon controlled rectifiers provides high dV/dt rate with strong resistance to electromagnetic interference. It is especially recommended for use on solid state relay, motorcycle, power charger, T-tools etc. Package TO-251 is RoHS compliant.

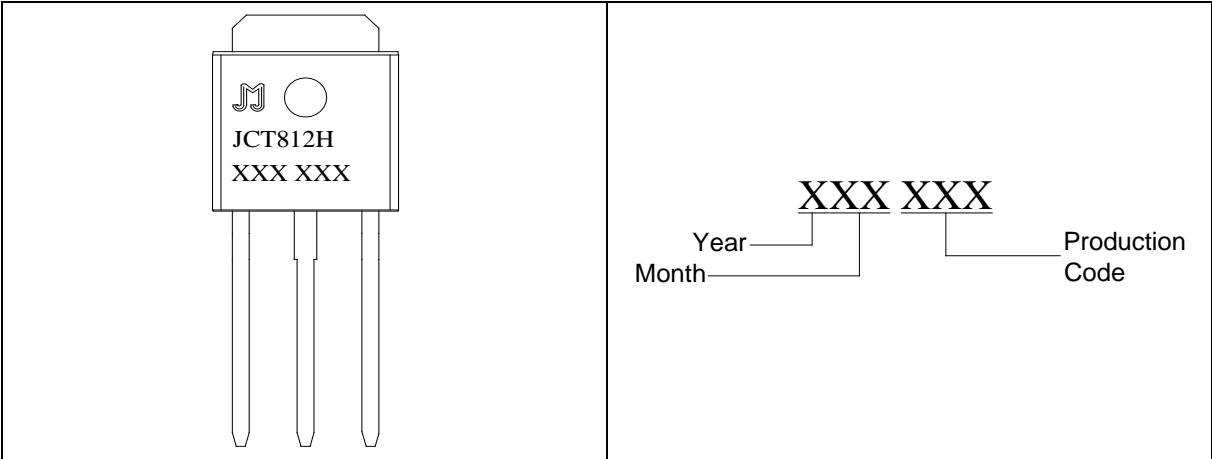
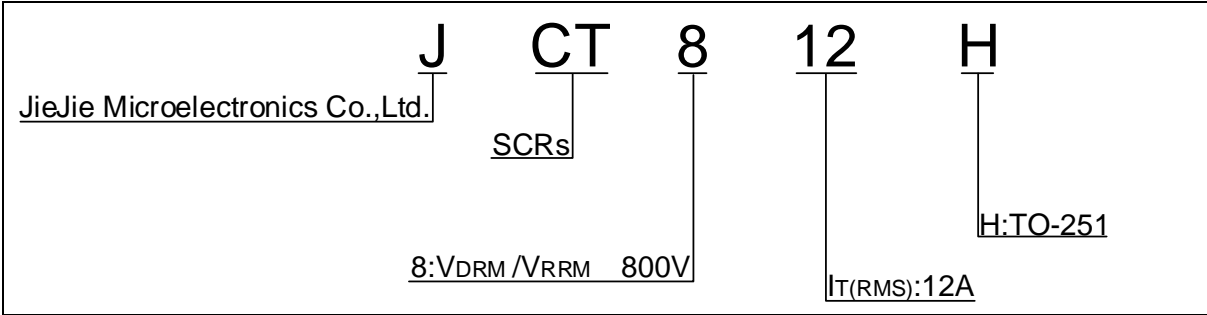
Symbol	Value	Unit
$I_{T(RMS)}$	12	A
V_{DRM}/V_{RRM}	800	V
I_{GT}	15	mA



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 ($T_j=25^\circ\text{C}$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	800	V
Average on-state current ($T_c = 63^\circ\text{C}$)	$I_{T(AV)}$	7.6	A
RMS on-state current ($T_c = 63^\circ\text{C}$)	$I_{T(RMS)}$	12	A
Non repetitive surge peak on-state current ($t_p=10\text{ms}, T_j=25^\circ\text{C}$)	I_{TSM}	140	A
Non repetitive surge peak on-state current ($t_p=8.3\text{ms}, T_j=25^\circ\text{C}$)		154	
I^2t value for fusing ($t_p=10\text{ms}, T_j=25^\circ\text{C}$)	I^2t	98	A^2s
Critical rate of rise of on-state current ($I_G=2 I_{GT}, f=100\text{Hz}, T_j=125^\circ\text{C}$)	di/dt	150	$\text{A}/\mu\text{s}$
Peak gate current ($t_p=20\mu\text{s}, T_j=125^\circ\text{C}$)	I_{GM}	4	A

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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		



JCT812H

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

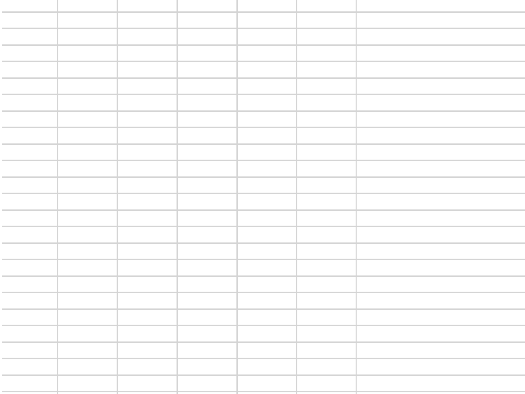
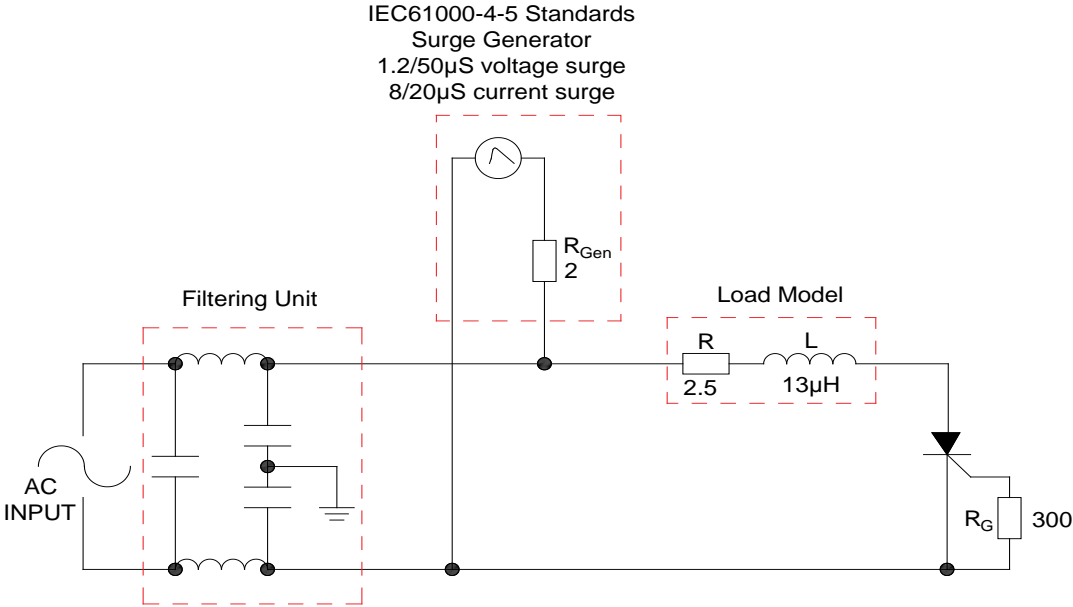


FIG.2: RMS on-state current versus case temperature

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



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

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT812H	800	15	TO-251	80	Tube

Document Revision History

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

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