

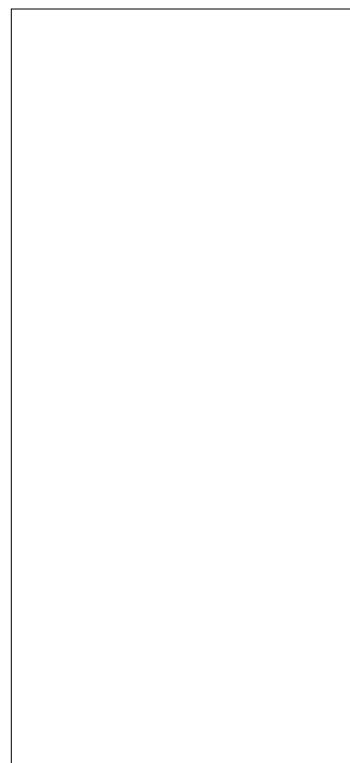


JCT812AH 12A SCR

Rev.A.1.1

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT812AH 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. From all three terminals to external heatsink, JCT812AH provides a rated insulation voltage of 2500 V_{RMS} , complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.



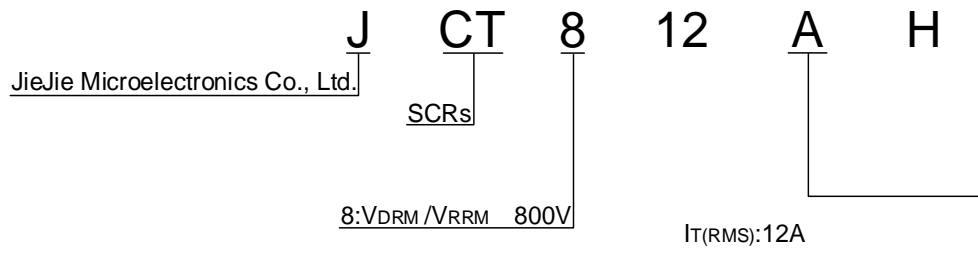
MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

| Parameter | Symbol | Value | Unit |
|---|--------------|---------|------|
| Storage junction temperature range | T_{stg} | -40-150 | |
| Operating junction temperature range | T_j | -40-150 | |
| Repetitive peak off-state voltage ($T_j=25^\circ C$) | V_{DRM} | 800 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ C$) | V_{RRM} | 800 | V |
| Average on-state current ($T_C=126^\circ C$) | $I_{T(AV)}$ | 8 | A |
| RMS on-state current ($T_C=126^\circ C$) | $I_{T(RMS)}$ | 12 | A |
| Non repetitive surge peak on-state current ($t_p=10ms, T_j=25^\circ C$) | I_{TSM} | 140 | A |

| | | | |
|--|-------------|---|---|
| Average gate power dissipation ($T_j=150$) | $P_{G(AV)}$ | 1 | W |
|--|-------------|---|---|

ORDERING INFORMATION



JCT812AH

FIG.1: Maximum power dissipation vs
RMS on-state current

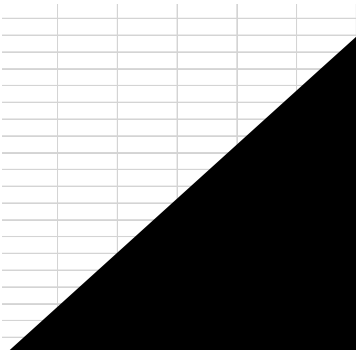
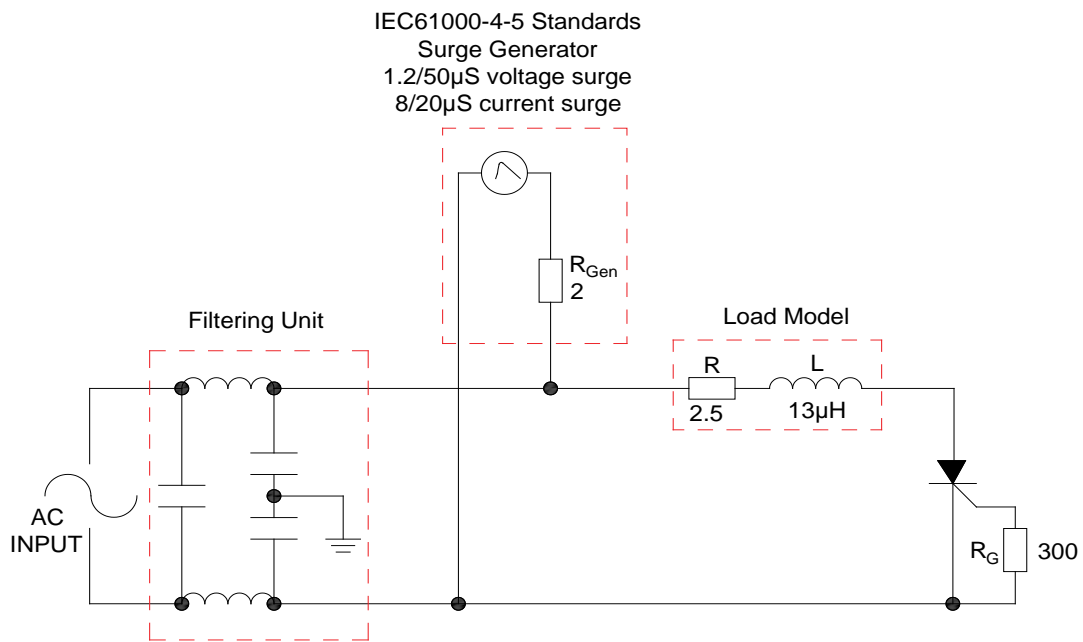


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



LEAD FORMING AND SOLDERING

Refer to the application note “Assembly Instructions for Thyristors in Through-hole Package” released by JieJie

ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|------------|----------------------------------|---------|--------------|--------------------|------------------|
| JCT812AH | 800 | 15 | TO-220A(Ins) | 50 | Tube |

Document Revision History

| Date | Revision | Changes |
|--------------|----------|-------------|
| Jun.15, 2023 | A.1.0 | Last update |
| Oct.11, 2025 | A.1.1 | Revise |

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