



## Rev.A.1.1

With high ability to withstand the shock loading of large current, JCT612A 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, JCT612A provides a rated insulation voltage of 2500 V<sub>RMS</sub>, 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                           | $T_{\text{stg}}$    | -40-150 |      |
| Operating junction temperature range                         | $T_j$               | -40-125 |      |
| Repetitive peak off-state voltage ( $T_j=25^\circ\text{C}$ ) | $V_{\text{DRM}}$    | 600     | V    |
| Repetitive peak reverse voltage ( $T_j=25^\circ\text{C}$ )   | $V_{\text{RRM}}$    | 600     | V    |
| Average on-state current ( $T_C \leq 89^\circ\text{C}$ )     | $I_{\text{T(AV)}}$  | 7.6     | A    |
| RMS on-state current ( $T_C \leq 89^\circ\text{C}$ )         | $I_{\text{T(RMS)}}$ | 12      | A    |

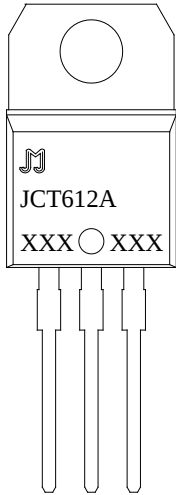
Substrate (p-tert-butylphenyl) and peak (m) state of the current Q q 71.16 161.4 254.64 31.-. <</MCID 48 >>BDC (t<sub>p</sub>=10ms, T<sub>j</sub>=25 °C)

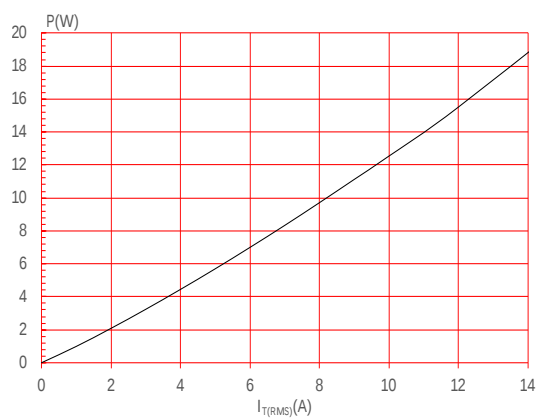
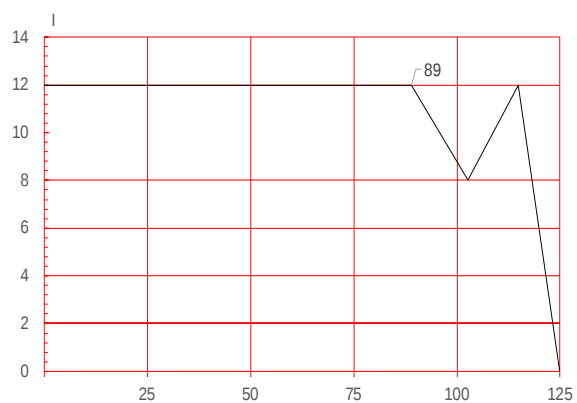
**JCT612A**

## ORDERING INFORMATION

|                                   |           |                                  |                   |                 |
|-----------------------------------|-----------|----------------------------------|-------------------|-----------------|
| <u>J</u>                          | <u>CT</u> | <u>6</u>                         | <u>12</u>         | <u>A</u>        |
| JieJie Microelectronics Co., Ltd. | SCRs      | $6: V_{DRM} / V_{RRM} \geq 600V$ | $I_{T(RMS)}: 12A$ | A: TO-220A(Ins) |

## MARKING

|                                                                                     |                                                                                                                                                                                                    |            |                 |            |  |      |  |  |                 |       |  |  |  |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------|------------|--|------|--|--|-----------------|-------|--|--|--|
|  | <table><tr><td></td><td><u>XXX</u></td><td><u>XXX</u></td><td></td></tr><tr><td>Year</td><td></td><td></td><td>Production Code</td></tr><tr><td>Month</td><td></td><td></td><td></td></tr></table> |            | <u>XXX</u>      | <u>XXX</u> |  | Year |  |  | Production Code | Month |  |  |  |
|                                                                                     | <u>XXX</u>                                                                                                                                                                                         | <u>XXX</u> |                 |            |  |      |  |  |                 |       |  |  |  |
| Year                                                                                |                                                                                                                                                                                                    |            | Production Code |            |  |      |  |  |                 |       |  |  |  |
| Month                                                                               |                                                                                                                                                                                                    |            |                 |            |  |      |  |  |                 |       |  |  |  |

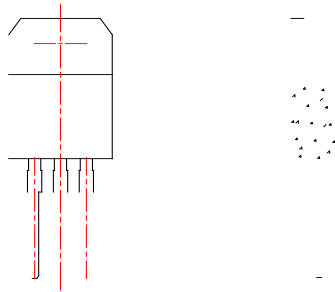
**FIG.1:** Maximum power dissipation versus RMS on-state current**FIG.2:** RMS on-state current versus case temperature

**JCT612A**

**JieJie Microelectronics Co., Ltd.**



**PACKAGE MECHANICAL DATA**



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