



JST136Q-800T 4A TRIAC

Rev.A.1.0

The JST136Q-800T triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. From T2 terminals to external heatsink. Package TO-126 is RoHS compliant.

| 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)

(T_j=25 unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|----------------------|---|----------|-------|-----|------|
| I _{GT} | V _D =12V R _L =33Ω | ALL | MAX. | 5 | mA |
| V _{GT} | | ALL | MAX. | 1 | V |
| V _{GD} | V _D =V _{DRM} T _j =125 R _L =3.3KΩ | ALL | MIN. | 0.2 | V |
| I _L | I _G =1.2I _{GT} | - | MAX. | 10 | mA |
| | | - | | 15 | |
| I _H | I _T =100mA | | MAX. | 5 | mA |
| dV/dt | V _D =540V Gate Open T _j =110 | | MIN. | 20 | V/μs |
| (dV/dt) _c | (dI/dt) _c =1.8A/ms, T _j =110 | | MIN. | 1 | V/μs |
| t _{on} | I _G =10mA I _A =200mA I _R =20mA T _j =25 | | TYP. | 1 | μs |
| t _{off} | | | | 12 | |

| Symbol | Parameter | | Value(MAX.) | Unit |
|------------------|---|---------------------|-------------|------|
| V _{TM} | I _{TM} =5A t _p =380μs | T _j =25 | 1.7 | V |
| V _{TO} | Threshold voltage | T _j =125 | 0.94 | V |
| R _D | Dynamic resistance | T _j =125 | 124 | mΩ |
| I _{DRM} | V _D =V _{DRM} V _R =V _{RDM} | T _j =25 | 5 | μA |
| I _{RRM} | | T _j =125 | 0.4 | mA |

| Symbol | Parameter | Value | Unit |
|----------------------|--------------------------|-------|------|
| R _{th(j-c)} | junction to case (AC) | 6.5 | /W |
| R _{th(j-a)} | junction to ambient (AC) | 150 | /W |

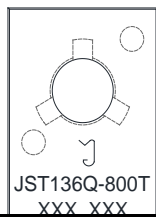
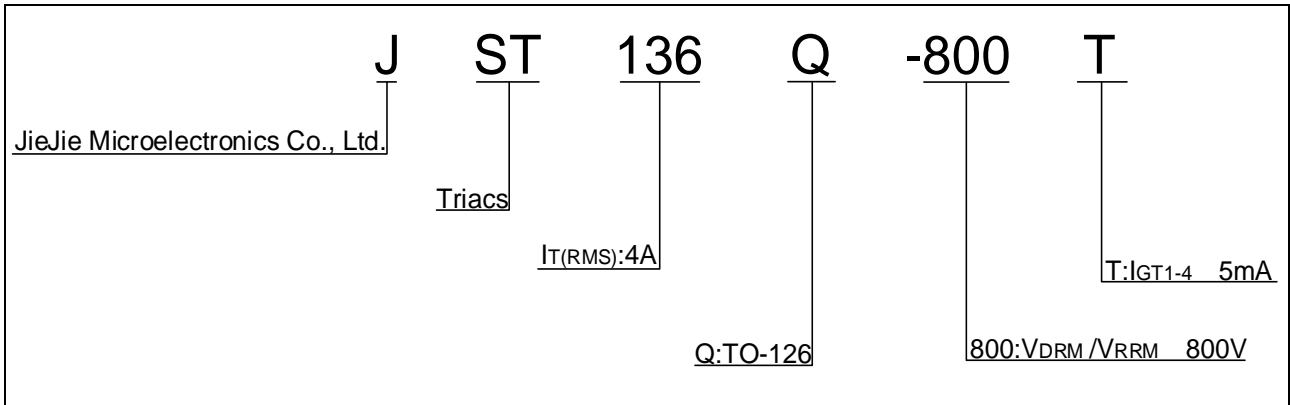
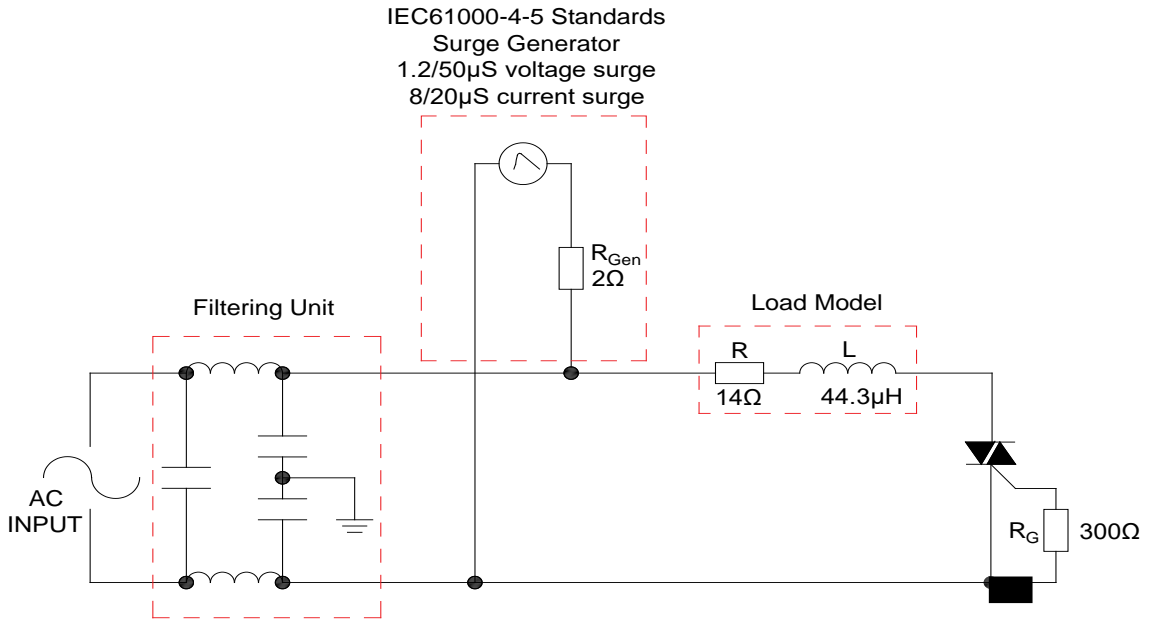


FIG.1 Maximum power dissipation versus RMS on-state current



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

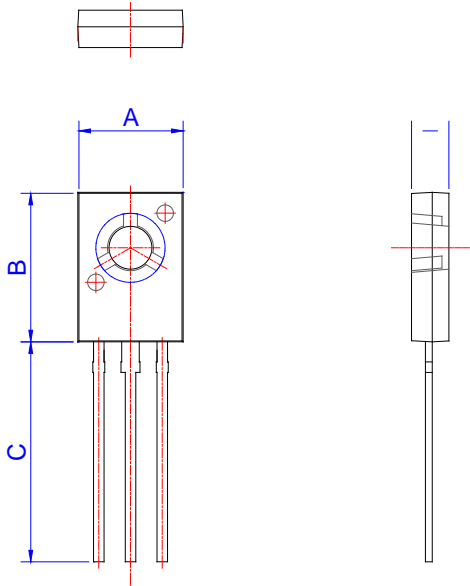
FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|--------------|----------------------------------|--------------|---------|--------------------|---------------|
| | | I -II-III-IV | | | |
| JST136Q-800T | 800 | 5 | TO-126 | 500 | Bulk Pack |

Document Revision History

| Date | Revision | Changes |
|--------------|----------|--------------|
| Apr.14, 2023 | A.1.0 | Last updated |



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