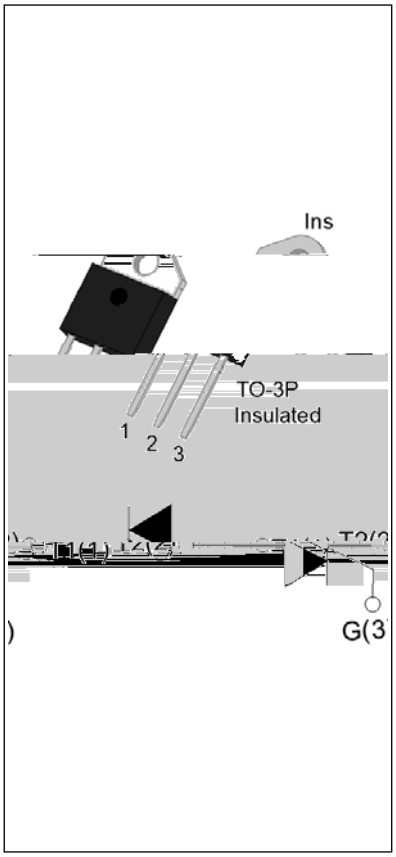
## JST41Z-800GW 40A TRIAC

Rev.A.1.1

### DESCRIPTION:

The JST41Z-800GW 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. JST41Z-800GW snubberless triac is especially recommended for use on inductive loads. By using an internal ceramic pad, JST41Z-800GW provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-3P is RoHS compliant.




### MAIN FEATURES

| Symbol | Value | Unit |
|---|---|---|
| $I_{T(RMS)}$ | 40 | A |
| $V_{DRM}$ /$V_{RRM}$ | 800 | V |
| $I_{GT}$ / / | 70/70/70 | mA |

### ABSOLUTE MAXIMUM RATINGS

| 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 ) | $V_{DRM}$ | 800 | V |
| Repetitive peak reverse voltage ($T_j$=25 ) | $V_{RRM}$ | 800 | V |
| RMS on-state current ($T_C \leq$ 81 ) | $I_{T(RMS)}$ | 40 | A |
| Non repetitive surge peak on-state current (full cycle , $t_p$=20ms , $T_j$=25 ) | $I_{TSM}$ | 420 | A |
| Non repetitive surge peak on-state current (full cycle , $t_p$=16.6ms , $T_j$=25 ) | | 462 | |
| $I^2t$ value for fusing ($t_p$=10ms , $T_j$=25 ) | $I^2t$ | 1000 | $A^2s$ |
| Critical rate of rise of on-state current ($I_G$=2 $I_{GT}$ , f=100Hz , $T_j$=125 ) | dI/dt | 100 | A/μs |
| Peak gate current ($t_p$=20μs , $T_j$=125 ) | $I_{GM}$ | 8 | A |

Average gate power dissipation ($T_j$=1

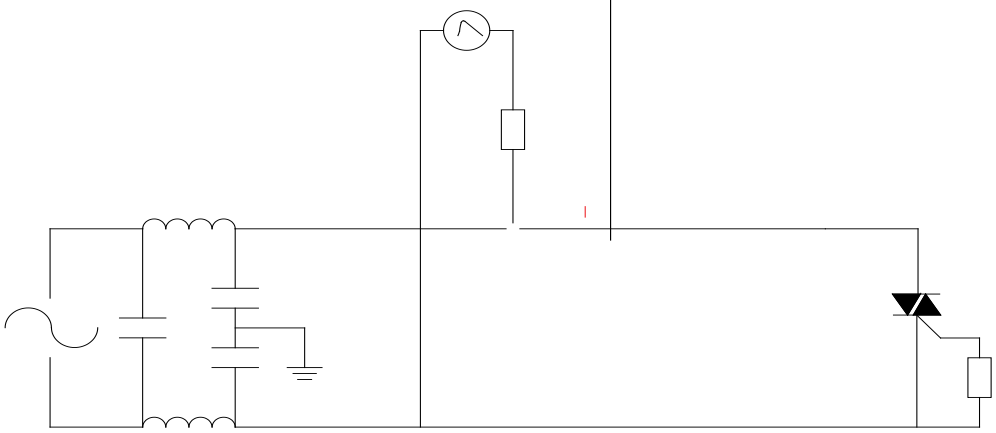
# JST41Z-800GW

**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



## ORDERING INFORMATION

| Order code | Voltage $V_{DRM}/V_{RRM}$(V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|---|---|---|---|---|---|
| | | - - | | | |
| JST41Z-800GW | 800 | 70 | TO-3P(Ins) | 30 | Tube |

### Document Revision History

| Date | Revision | Changes |
|---|---|---|
| Apr.11, 2023 | A.1.0 | Last updated |
| Oct.16, 2025 | A.1.1 | Revise PACKAGE MECHANICAL DATA |

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