



T0810H-8E 8A TRIAC

Rev.A.1.1

DESCRIPTION:

The T0810H-8E 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. Compared to traditional triacs, T0810H-8E provides a very high switching capability up to junction temperatures of 150°C. It can be driven directly through the MCU I/O port. Package TO-263 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 ($T_j=25^\circ\text{C}$) | V_{DRM} | 800 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$) | V_{RRM} | 800 | V |
| RMS on-state current ($T_c = 133^\circ\text{C}$) | $I_{T(RMS)}$ | 8 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$) | I_{TSM} | 80 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$) | | 88 | |
| I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$) | I^2t | 32 | A^2s |

Critical rate of rise of on-state current
($I_G=2$)

T0810H-8E

| | | | |
|--|----------|-----|----|
| Peak gate power | P_{GM} | 10 | W |
| Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.8) | V_{pp} | 2.5 | kV |

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | Unit |
|----------|----------------|----------|-------|------|
| I_{GT} | $V_D=12V$ R | | | |

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

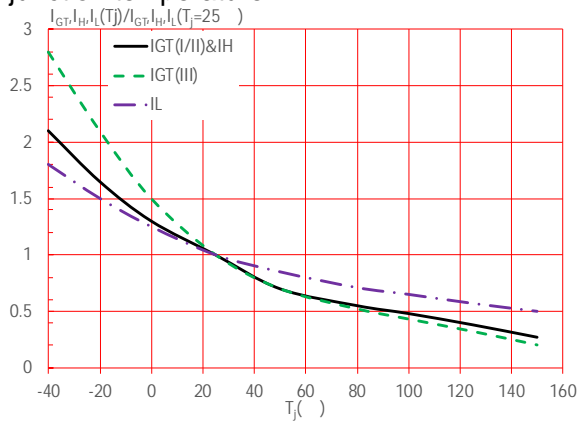
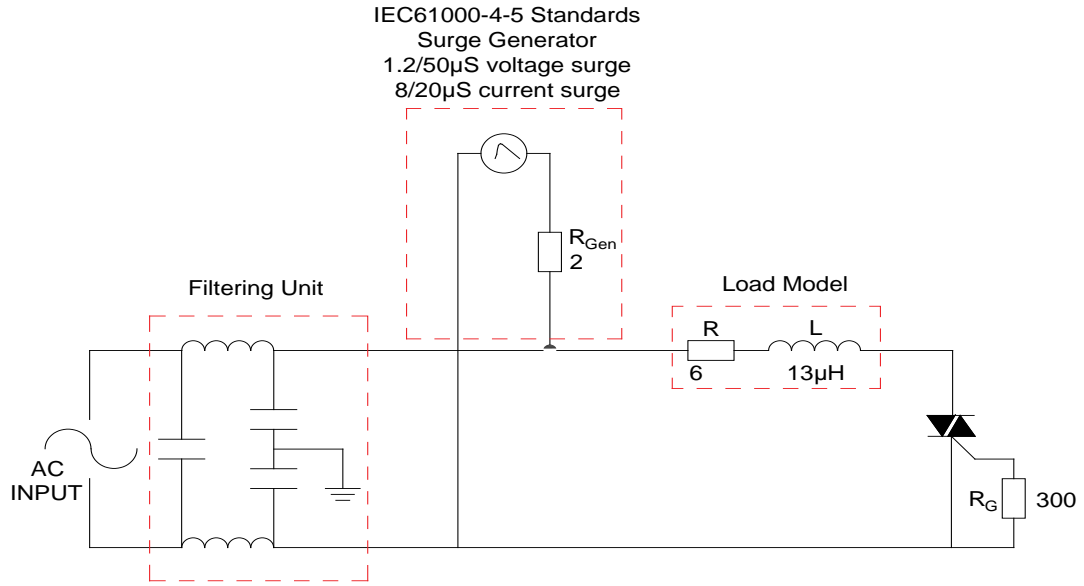


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|--------------|----------------------------------|---------|---------|--------------------|---------------|
| | | - - | | | |
| T0810H-8E | 800 | 10 | TO-263 | 50 | Tube |
| T0810H-8E-TR | | | | 800 | Tape & Reel |

Document Revision History

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

PACKAGE MECHANICAL DATA

| Ref. | Dimensions | | | | | |
|------|-------------|------|-------|--------|------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 9.90 | | 10.20 | 0.390 | | 0.402 |
| B | 14.70 | | 15.80 | 0.579 | | 0.622 |
| C | 9.40 | | 9.60 | 0.370 | | 0.378 |
| D | 2.40 | | | 0.094 | | |
| E | 1.20 | | 1.50 | | | |
| F | | | | | | |

DELIVERY MODE

