

Hutson Industries, Inc.

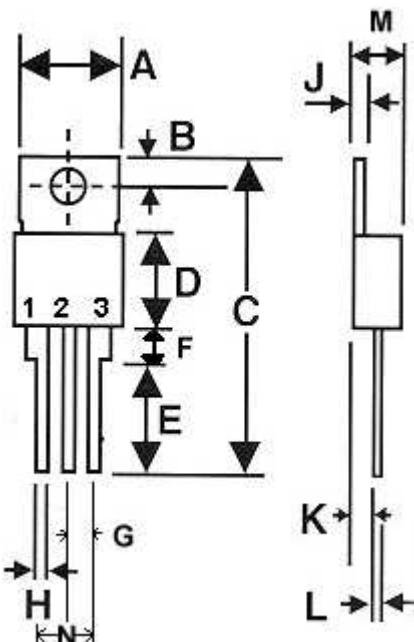
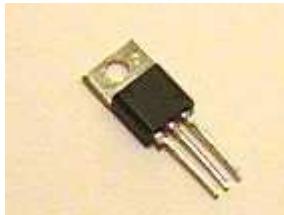
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TO-220 ISOLATED* TRIAC



1. MT 1

2. MT 2

3. GATE

| SYM. | INCHES | |
|------|--------|-------|
| A | 0.410 | 0.430 |
| B | 0.097 | 0.103 |
| C | 1.160 | 1.175 |
| D | 0.340 | 0.350 |
| E | 0.375 | 0.475 |
| F | 0.085 | 0.200 |
| G | 0.090 | 0.160 |
| H | 0.030 | 0.035 |
| J | 0.045 | 0.055 |
| K | 0.070 | 0.080 |
| L | 0.019 | 0.025 |
| M | 0.175 | 0.195 |
| N | 0.190 | 0.210 |

| MAXIMUM RATINGS | SYMBOL | DEVICE NUMBERS | | | UNITS | |
|---|------------------------|------------------------|------------------------|-------------------------|----------------------------------|------|
| REPETITIVE PEAK OFF-STATE VOLTAGE (1) GATE OPEN, AND $T_J = 110^\circ\text{C}$ / V_{DRM} | | 200 400 600 | IT28 IT48 IT68 | IT210 IT410 IT610 | IT215 IT415 IT615 | VOLT |
| RMS ON-STATE CURRENT AT $T_C = 80^\circ\text{C}$ AND CONDUCTION, ANGLE OF 360° | IT(RMS) | 8.0 | 10.0 | 15.0 | AMP | |
| PEAK SURGE (NON-REPETITIVE) ON-STATE CURRENT, ONE-CYCLE, AT 50HZ OR 60HZ | ITSM | 80 | 100 | 150 | AMP | |
| PEAK GATE - TRIGGER CURRENT FOR $3\mu\text{SEC. MAX.}$ | IGTM | 3 | 4 | 4 | AMP | |
| PEAK GATE-POWER DISSIPATION AT $IGT \leq IGT_{\text{M}}$ | PGM | 20 | 40 | 40 | WATT | |
| AVERAGE GATE - POWER DISSIPATION | PG(AV) | 0.2 | 0.5 | 0.8 | WATT | |
| STORAGE TEMPERATURE RANGE | TSTG | | -40 to +150 | | °C | |
| OPERATING TEMPERATURE RANGE, T_J | TOPER | | -40 to +110 | | °C | |
| PEAK OFF - STATE CURRENT (1) GATE OPEN $T_C = 110^\circ\text{C}$ $V_{DRM} = \text{MAX. RATING}$ | IDRM | 0.5 | 0.5 | 0.5 | MA MAX. | |
| MAXIMUM ON - STATE VOLTAGE, (1) AT $T_C = 25^\circ\text{C}$ AND IT = RATED AMPS | VTM | 2.2 | 2.2 | 2.2 | VOLT MAX. | |
| DC HOLDING CURRENT, (1) GATE OPEN AND $T_C = 25^\circ\text{C}$ | IHO | 50 | 50 | 50 | MA MAX. | |
| CRITICAL RATE-OF-RISE OF OFF-STATE VOLTAGE, (1) FOR $V_D = V_{DRM}$ GATE OPEN, $T_C = 110^\circ\text{C}$ | Critical dv/dt | 150 | 150 | 150 | $V/\mu\text{SEC.}$ | |
| CRITICAL RATE-OF-RISE OF COMMUTATING VOLTAGE, (1) AT $T_C = 80^\circ\text{C}$, GATE ENERGIZED, $V_D = V_{DRM}$ IT=IT (RMS) | COMMUTATING dv/dt | 4 | 4 | 4 | $V/\mu\text{SEC.}$ | |
| DC GATE - TRIGGER CURRENT FOR $V_D = 12\text{VDC}$. $RL = 60\text{ ohm}$ AND AT $T_C = 25^\circ\text{C}$ (T2 + GATE + T2 - GATE-) QUADS I & III (T2 + GATE - T2 - GATE +) QUADS II & IV | IGT | 50 I, III 80 II, IV | 50 I, III 80 II, IV | 50 I, III 80 II, IV | MA MAX. | |
| DC GATE - TRIGGER VOLTAGE FOR $V_D = 12\text{VDC}$. $RL = 60\text{ ohm}$ AND AT $T_C = 25^\circ\text{C}$ | VGT | 2.5 | 2.5 | 2.5 | VOLT MAX. | |
| GATE CONTROLLED TURN-ON TIME FOR $V_D = V_{DRM}$ $IGT = 80\text{mA}$ $TR = 0.1\ \mu\text{SEC.}$ $IT = 10\text{A}$ (PEAK) AND $T_C = 25^\circ\text{C}$ | TGT | 2.5 | 2.5 | 2.5 | $\mu\text{SEC.}$ | |
| THERMAL RESISTANCE, JUNCTION-TO-CASE | R_{QJ-C} | 2.5 | 2.5 | 2.5 | $^\circ\text{C}/\text{WATT TYP}$ | |

NOTES: (1) ALL VALUES APPLY IN EITHER DIRECTION. *ALL HUTSON ISOLATED TO-220 TRIAC DEVICES ARE UL RECOGNIZED. UL NUMBER E95589 (N)