



## T4050H-6Z 40A TRIAC

Rev.A.1.1

### DESCRIPTION:

The T4050H-6Z 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, T4050H-6Z provides a very high switching capability up to junction temperatures of 150°C. s.

|                                                                      |             |    |    |
|----------------------------------------------------------------------|-------------|----|----|
| Average gate power dissipation ( $T_j=150$ )                         | $P_{G(AV)}$ | 1  | W  |
| Peak gate power                                                      | $P_{GM}$    | 40 | W  |
| Peak pulse voltage<br>( $T_j=25$ ; non-repetitive, off-state; FIG.7) | $V_{pp}$    | 2  | kV |

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

| Symbol      | Test Condition                                | Quadrant | Value |      | Unit       |
|-------------|-----------------------------------------------|----------|-------|------|------------|
| $I_{GT}$    | $V_D=12V$ $R_L=33\Omega$                      | - -      | MAX.  | 50   | mA         |
| $V_{GT}$    |                                               | - -      | MAX.  | 1.3  | V          |
| $V_{GD}$    | $V_D=V_{DRM}$ $T_j=150$<br>$R_L=3.3k\Omega$   | - -      | MIN.  | 0.2  | V          |
| $I_L$       | $I_G=1.2I_{GT}$                               | -        | MAX.  | 80   | mA         |
|             |                                               |          |       | 150  |            |
| $I_H$       | $I_T=1A$                                      |          | MAX.  | 80   | mA         |
| $dV/dt$     | $V_D=400V$ Gate Open $T_j=150$                |          | MIN.  | 1800 | V/ $\mu s$ |
| $(dI/dt)_c$ | $(dV/dt)_c=20V/\mu s$ , $T_j=150$             |          | MIN.  | 30   | A/ms       |
| $t_{on}$    | $I_G=80mA$ $I_A=400mA$ $I_R=40mA$<br>$T_j=25$ |          | TYP.  | 5    | $\mu s$    |
| $t_{off}$   |                                               |          |       | 50   |            |

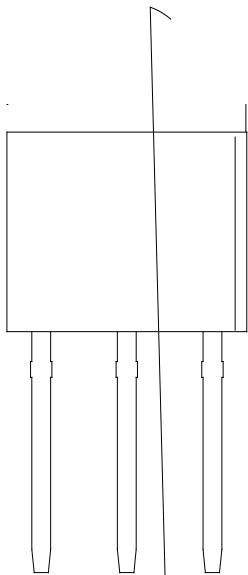
**STATIC CHARACTERISTICS**

| Symbol    | Parameter                   |           | Value(MAX.) | Unit      |
|-----------|-----------------------------|-----------|-------------|-----------|
| $V_{TM}$  | $I_{TM}=60A$ $t_p=380\mu s$ | $T_j=25$  | 1.4         | V         |
| $V_{TO}$  | Threshold voltage           | $T_j=150$ | 0.72        | V         |
| $R_D$     | Dynamic resistance          | $T_j=150$ | 10          | $m\Omega$ |
| $I_{DRM}$ | $V_D=V_{DRM}$ $V_R=V_{RRM}$ | $T_j=25$  | 10          | $\mu A$   |
| $I_{RRM}$ |                             | $T_j=150$ |             |           |

ORDERING INFORMATION

|             |           |      |                           |              |              |
|-------------|-----------|------|---------------------------|--------------|--------------|
| T           | 40        | 50   | H                         | -6           | Z            |
| Triacs      |           |      |                           |              | Z:TO-3P(Ins) |
| IT(RMS):40A |           |      |                           |              |              |
|             | 50:IGT1-3 | 50mA |                           | 6:VDRM /VRRM | 600V         |
|             |           |      | High junction temperature |              |              |

MARKING



**T4050H-6Z**

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

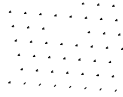
## ORDERING INFORMATION

| Order code | Voltage<br>$V_{\text{DRM}}/V_{\text{RRM}}$ (V) | IGT(mA) | Package    | Base qty.<br>(pcs) | Delivery<br>mode |
|------------|------------------------------------------------|---------|------------|--------------------|------------------|
|            |                                                | - -     |            |                    |                  |
| T4050H-6Z  | 600                                            | 50      | TO-3P(Ins) | 30                 | Tube             |

## Document Revision History

| Date         | Revision | Changes                        |
|--------------|----------|--------------------------------|
| Apr.10, 2023 | A.1.0    | Last updated                   |
| Oct.16, 2025 | A.1.1    | Revise PACKAGE MECHANICAL DATA |

**PACKAGE MECHANICAL DATA**



Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document supersedes and replaces all information previously supplied.



is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.

Copyright © 2025 Jiangsu JieJie Microelectronics Co., Ltd. All rights reserved.