

| | | |
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| SANYO | No.799D | DTA-05 |
| | | Silicon Planar Type 0.5A Bidirectional Thyristor |

Features

- Low AC power control
- Small size and light weight : 0.2g
- Peak OFF-state voltage : 100 to 400V
- RMS ON-state current : 0.5A
- TO-92 package

Absolute Maximum Ratings at Ta = 25°C

| | | DTA05B | DTA05C | DTA05E | unit |
|-----------------------------------|----------------------|--|--------|-------------|------------------|
| Repetitive Peak OFF-State Voltage | V _{DRM} | 100 | 200 | 400 | V |
| RMS ON-State Current | I _{T (RMS)} | Ta = 20°C, single-phase full-wave Peak 1 cycle, 50Hz | | 0.5 | A |
| Surge ON-State Current | I _{TSM} | → | → | 6 | A |
| Amperes Squared-Seconds | i ² T-dt | → | → | 0.18 | A ² s |
| Peak Gate Power Dissipation | P _{GM} | → | → | 1 | W |
| Average Gate Power Dissipation | P _{G(AV)} | → | → | 0.1 | W |
| Peak Gate Current | I _{GM} | → | → | 0.5 | A |
| Peak Gate Voltage | V _{GM} | → | → | 6 | V |
| Junction Temperature | T _j | → | → | 110 | °C |
| Storage Temperature | T _{stg} | → | → | -25 to +110 | °C |

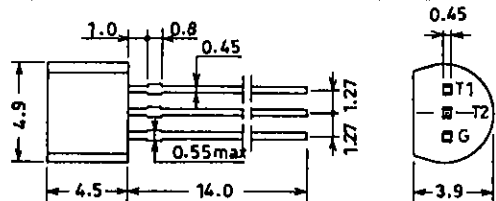
Electrical Characteristics at Ta = 25°C

| | | | min | typ | max | unit |
|-----------------------------------|----------------------|---|-----|-----|-----|------|
| Repetitive Peak OFF-State Current | I _{DRM} | T _j = 110°C, V _D = V _{DRM} | | | 0.1 | mA |
| ON-State Voltage | V _T | I _T = 2A | | | 2.0 | V |
| Holding Current | I _H | R _L = 100Ω | | | 25 | mA |
| Gate · Trigger Current ※ (I) | I _{GT} | V _D = 12V, R _L = 20Ω | | | 15 | mA |
| " (II) | I _{GT} | V _D = 12V, R _L = 20Ω | | | 15 | mA |
| " (III) | I _{GT} | V _D = 12V, R _L = 20Ω | | | — | |
| " (IV) | I _{GT} | V _D = 12V, R _L = 20Ω | | | 15 | mA |
| Gate · Trigger Voltage ※ (I) | V _{GT} | V _D = 12V, R _L = 20Ω | | | 2.3 | V |
| " (II) | V _{GT} | V _D = 12V, R _L = 20Ω | | | 2.3 | V |
| " (III) | V _{GT} | V _D = 12V, R _L = 20Ω | | | — | |
| " (IV) | V _{GT} | V _D = 12V, R _L = 20Ω | | | 2.3 | V |
| Gate · Nontrigger Voltage | V _{GD} | T _c = 25°C, V _D = V _{DRM} | 0.2 | | | V |
| Thermal Resistance | R _{th(j-a)} | | | | 250 | °C/W |

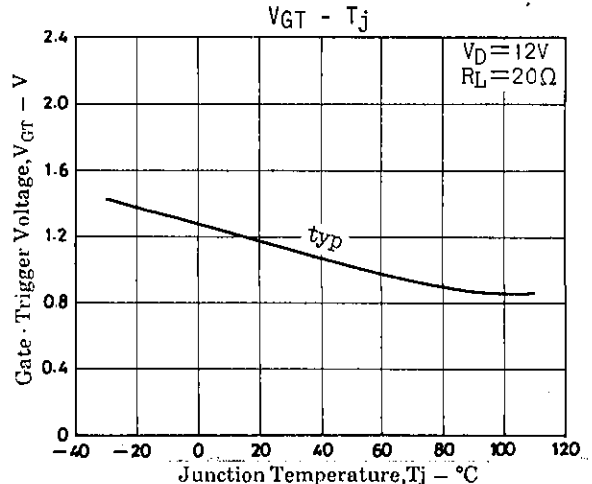
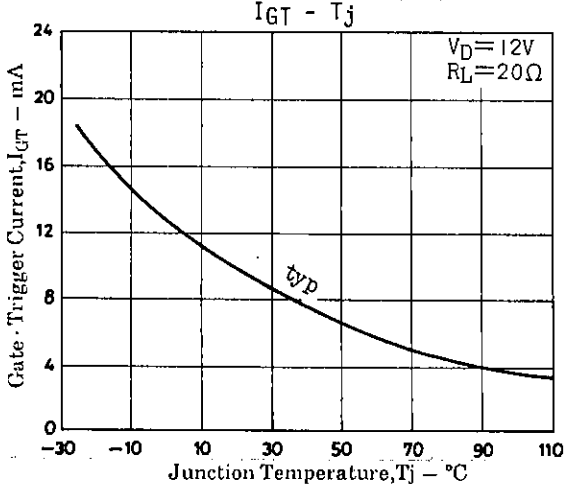
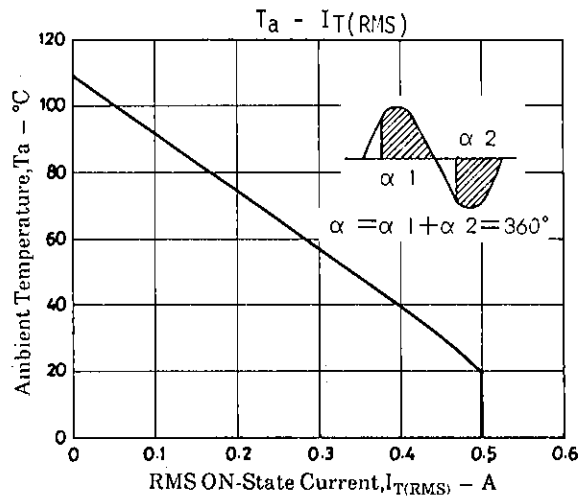
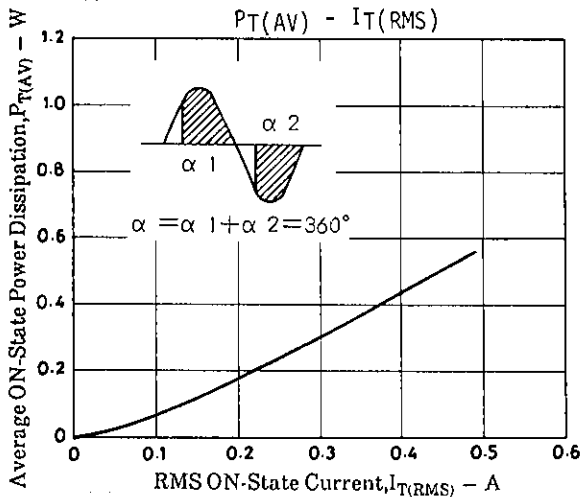
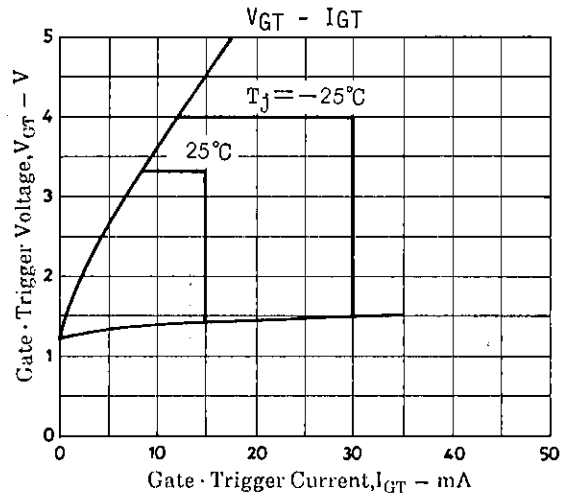
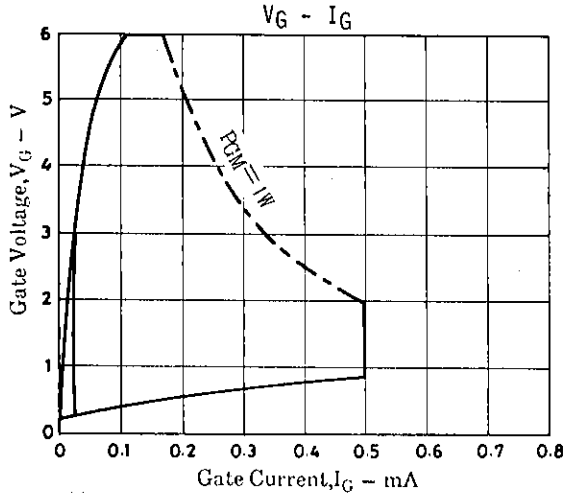
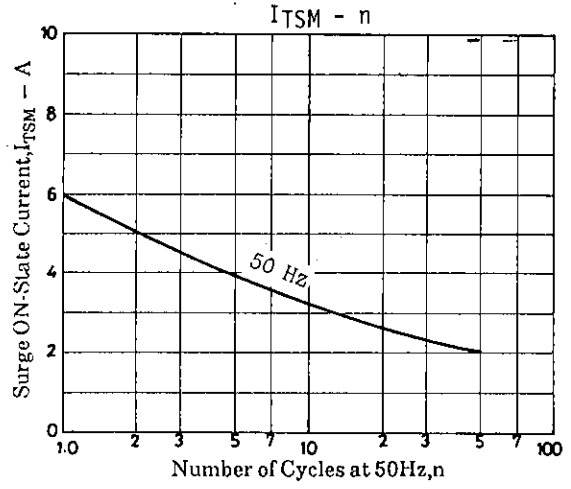
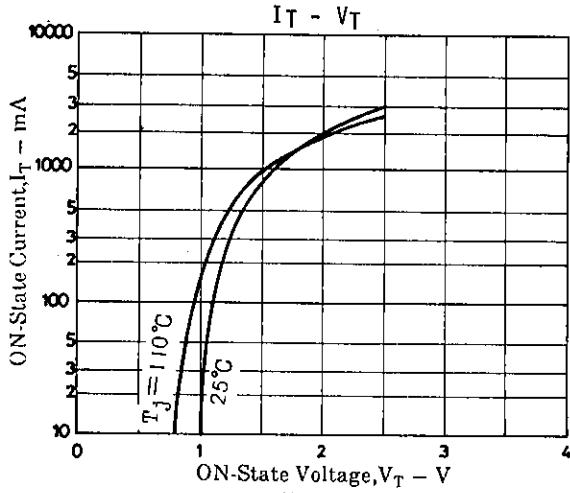
※ : The gate trigger mode is shown below.

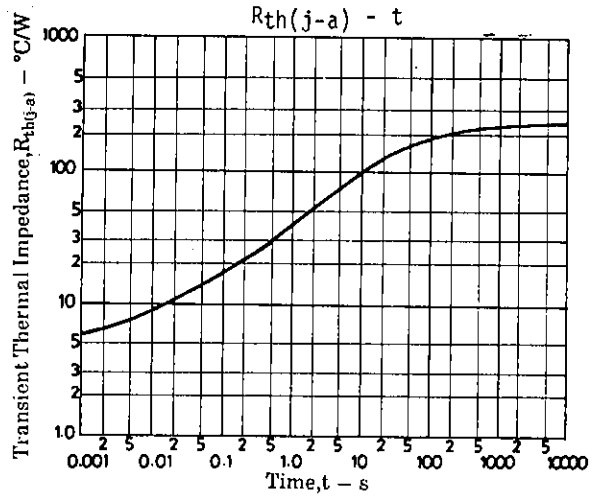
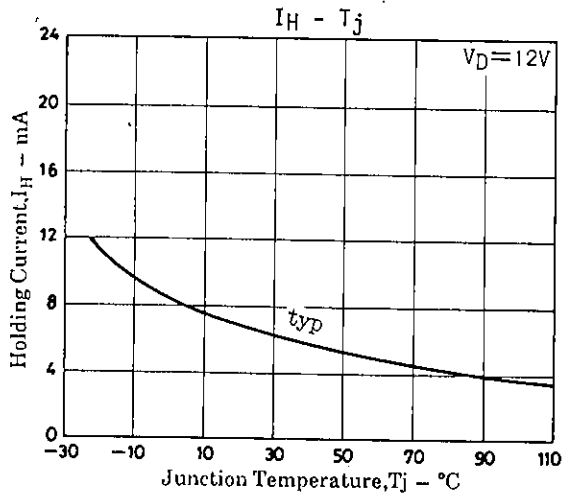
| Trigger mode | T2 | T1 | G |
|--------------|----|----|---|
| I | + | - | + |
| II | + | - | - |
| III | - | + | + |
| IV | - | + | - |

Package Dimensions 1097A
(unit: mm)



G: Gate





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