

**DTA08E**

Silicon Planar Type

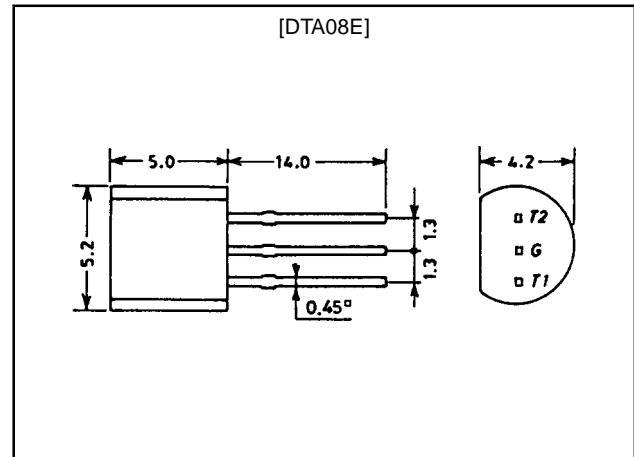
0.8A Bidirectional Thyristor**Features**

- Low AC power control.
- Peak OFF-state voltage : 400V.
- RMS ON-state current : 0.8A.
- TO-92 package.

Package Dimensions

unit:mm

1141



*:The gate trigger mode is shown below.

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

Specifications**Absolute Maximum Ratings at Ta = 25°C**

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------------|---------------|---------------------------------|-------------|------------------|
| Repetitive Peak OFF-State Voltage | V_{DRM} | | 400 | V |
| RMS ON-State Current | $I_T(RMS)$ | Ta=60°C, single-phase full-wave | 0.8 | A |
| Surge ON-State Current | I_{TSM} | Peak 1 cycle, 50Hz | 7 | A |
| Amperes Squared-Seconds | $\int i^2 dt$ | 1ms≤t≤10ms | 0.2 | A ² s |
| Peak Gate Power Dissipation | P_{GM} | f≥50Hz, duty≤10% | 1 | W |
| Average Gate Power Dissipation | $P_{G(AV)}$ | | 0.1 | W |
| Peak Gate Current | I_{GM} | f≥50Hz, duty≤10% | ±1 | A |
| Junction Temperature | Tj | | 125 | °C |
| Storage Temperature | Tstg | | -40 to +125 | °C |
| Weight | | | 0.3 | g |

Electrical Characteristics at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|-----------|-------------------------------|---------|-----|-----|------|
| | | | min | typ | max | |
| Repetitive Peak OFF-State Current | I_{DRM} | Tj=125°C, VD=VDRM | | | 0.1 | mA |
| ON-State Voltage | V_T | IT=1.2A | | | 1.5 | V |
| Critical Rate of Rise of OFF-State Voltage | (dv/dt)c | Tj=125°C, VD=VDRM | 1 | | | V/μs |
| Holding Current | I_H | VD=24V | | 5 | 10 | mA |
| Gate Trigger Current* (I) | I_{GT} | VD=12V, RL=100Ω | | | 5 | mA |
| Gate Trigger Current (II) | I_{GT} | VD=12V, RL=100Ω | | | 10 | mA |
| Gate Trigger Current (III) | I_{GT} | VD=12V, RL=100Ω | | | 10 | mA |
| Gate Trigger Current (IV) | I_{GT} | VD=12V, RL=100Ω | | | 5 | mA |
| Gate Trigger Voltage* (I) | V_{GT} | VD=12V, RL=100Ω | | | 1 | V |
| Gate Trigger Voltage (II) | V_{GT} | VD=12V, RL=100Ω | | | 1.5 | V |
| Gate Trigger Voltage (III) | V_{GT} | VD=12V, RL=100Ω | | | 1.5 | V |
| Gate Trigger Voltage (IV) | V_{GT} | VD=12V, RL=100Ω | | | 1 | V |
| Gate Nontrigger Voltage | V_{GD} | Tj=125°C, VD=1/2VDRM | 0.1 | | | V |
| Thermal Resistance | Rth(j-a) | Between junction and case, AC | | | 75 | °C/W |

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