

## TRIAC For High Power

### TG40E60

$I_{T(RMS)} = 40A$ ,  $V_{DRM} = 600V$

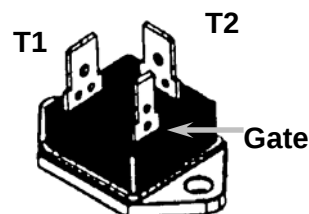
SanRex Triac **TG40E60** is specially designed use for high power AC switching application. Thanks to SanRex's new isolated diffusion technology, the Triac **TG40E60** features high dv/dt, dv/dt/c and very low on-state voltage. These benefits make this design an extremely reliable and efficient device for use in wide variety of applications.

#### Features

- \* High Power
- \* High Surge Current
- \* Low On-State Voltage
- \* High Commutation Performance
- \* UL registered E76102

#### Typical Applications

- \* Home Appliances
- \* Water Heaters
- \* Heater Controls
- \* Lighting Controls
- \* Temperature Controls



Isolated Fast-on Package



Internal schematic diagram

#### < Maximum Ratings >

(T<sub>j</sub> = 25°C unless otherwise noted)

| Symbol              | Item                                      | Conditions                                                                                 | Ratings     | Unit             |
|---------------------|-------------------------------------------|--------------------------------------------------------------------------------------------|-------------|------------------|
| V <sub>DRM</sub>    | Repetitive Peak Off-state Voltage         |                                                                                            | 600         | V                |
| I <sub>T(RMS)</sub> | R.M.S. On-state Current                   | T <sub>C</sub> = 64°C                                                                      | 40          | A                |
| I <sub>TSM</sub>    | Surge On-state Current                    | One cycle, 60Hz, Peak, non-repetitive                                                      | 420         | A                |
| I <sup>2</sup> t    | I <sup>2</sup> t (for fusing)             | Value for one cycle surge current                                                          | 730         | A <sup>2</sup> s |
| P <sub>GM</sub>     | Peak Gate Power Dissipation               |                                                                                            | 10          | W                |
| P <sub>G(AV)</sub>  | Average Gate Power Dissipation            |                                                                                            | 1           | W                |
| I <sub>GM</sub>     | Peak Gate Current                         |                                                                                            | 3           | A                |
| V <sub>GM</sub>     | Peak Gate Voltage                         |                                                                                            | 10          | V                |
| di/dt               | Critical Rate of Rise of On-State Current | I <sub>G</sub> = 100mA, V <sub>D</sub> = 1/2V <sub>DRM</sub> , di <sub>G</sub> /dt = 1A/μs | 50          | A/Fs             |
| T <sub>j</sub>      | Operation Junction Temperature            |                                                                                            | -40 to +125 | °C               |
| T <sub>stg</sub>    | Storage Temperature                       |                                                                                            | -40 to +150 | °C               |
| V <sub>ISO</sub>    | Isolation Breakdown Voltage               | R.M.S. , A.C. 1 minute                                                                     | 2500        | V                |
|                     | Mounting Torque (M4)                      | Recommended value 1.0 – 1.4 N*m                                                            | 1.5         | N*m              |
|                     | Mass                                      | Typical Value                                                                              | 23          | g                |

