

Quality and robustness for your everyday needs

There is a large variety of home appliances that surround all of us in our everyday life. Most of them rely their operation on power semiconductors on the smaller side of the spectrum: triacs. Many of them also share very similar demands on the electrical characteristics of a triac, some of the most common requirements of this application include:

High Tj (max) (150°C)

→ Our triacs can handle high temperatures for intensive use.

High current capability

→ Starting from 1 A, all the way up to 70 A Tj (max) 150°C

Smaller heat sinking and compactness

→ With one of the biggest chips on the market, the size of the heat sink can be minimized.

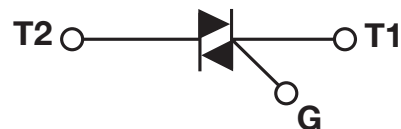
Varying selection of products for specific needs

→ Different packages like SMD, Tab terminal and Through-hole-packages as well as 3 quadrant, high Tj(max) and Sensitive gate -type of triacs available, supporting both isolated and non-isolated models.

SMG08C60A5

Typical Applications

- TMG3D80C (Fan)
- TMG3D60F5 / TMG5D60F5 (Rice Cooker)
- TMG16CQ60 / TMG3C60F (Vacuum Cleaner)
- TMG8C80F5 / TMG3C60F5 / TMG1D60 (Washing Machine)
- TMG5C60D / TMG12C60F5 (Dryer)
- TMG25CQ60F (Coffee Maker)



TG

600V/16A
to
600V/70A

TMG

600V/1A
to
800V/40A

PACKAGE OPTIONS

Through Hole

(Standard/ Sensitive Gate/ Tj=150C°)

TO-92 TO-220AB2 TO-3PF
TO-251 TO-220F
TO-220AB TO-3P

Surface Mount

(Standard/ Sensitive Gate/ Tj=150C°)

SOT-89, TO-252, TO-263, TO-92

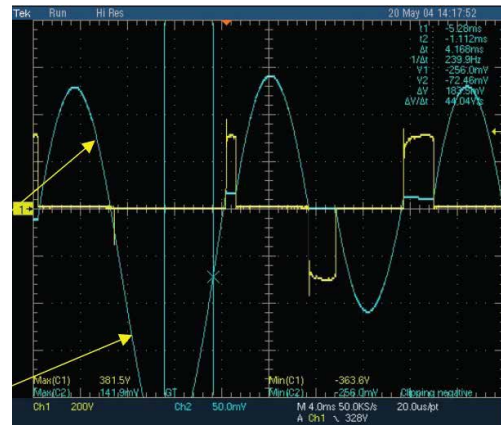
Tab Terminal

(Standard)

TO-3



No malfunction, irregularities of voltage are controlled by our triac

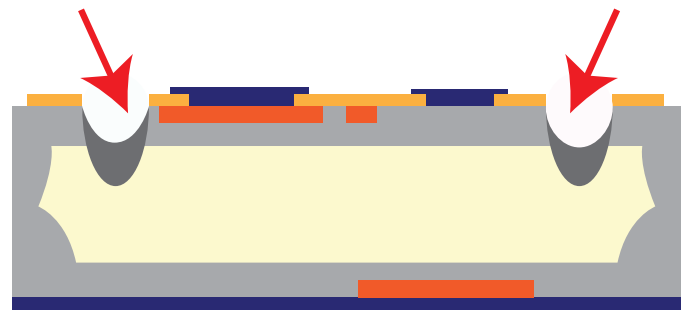


Malfunction, current and voltage are irregular.

Low EMI

→ Very high capability of withstanding EMI is one of the most important features in home appliance application. Our triacs offer both high dv/dt immunity and high di/dt capability to minimize the unwanted electromagnetic interference. This also allows use of only a smaller snubber, or no snubber at all.

SanRex-made products include a chip with a mesa-type glass passage structure that guarantees a high voltage withstand capability and in case of a voltage breakdown, the resistance capacity is strong.



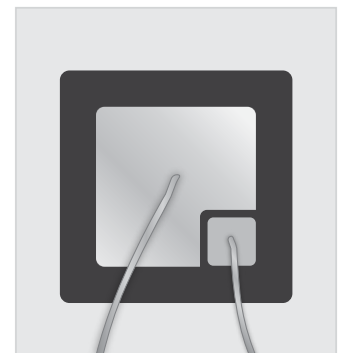
Cross-section picture of the Mesa-type chip.

As for the wire-bonding of the chip, the overall number, thickness and number of junction points of the wires are increased and have excellent surge current withstand capability.

Our triacs also have better availability on the market compared to other similar products.



SanRex chip with two junction points.



Supplier 1. chip with one junction point.

ITEM	SanRex	Supplier 1	Supplier 2
Chip size (mm)	3.3 × 3.3	2.6 × 2.6	3.3 × 3.3
Internal (wire) configuration	350µm × 2	250µm × 1	300µm × 1
Number of junction points	2	1	2