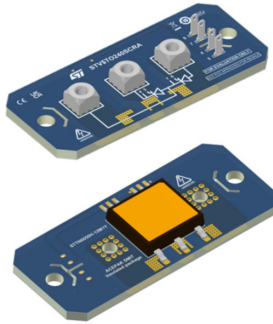


Evaluation board with dual ST SCRs in ACEPACK SMIT package in TO240 module form factor



Features

- Ready to test the TO240 interface board
- Same pinout and mounting points as the TO240 module
- Same thermal impedance (junction to case) as TO240
- Thinner profile than TO240
- High current capability
- Surface mount package compatible with automatic assembly processes

Description

STEVAL-TO240SCR is a ready-to-use interface board that features a 60 A dual thyristor. The evaluation board allows evaluating the ACEPACK SMIT package as an alternative to the TO240 module, using the same mounting points and a comparable heatsink.

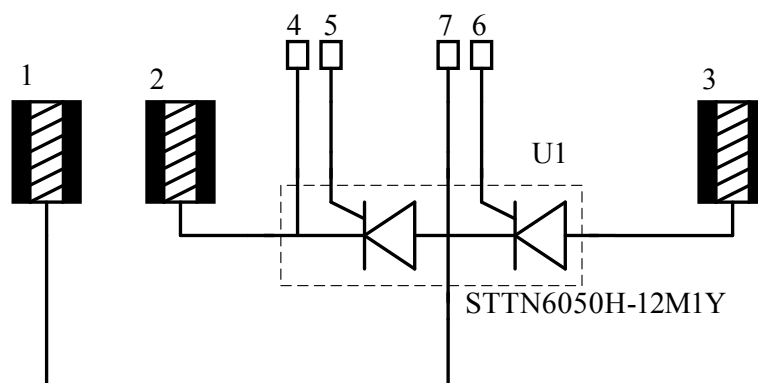
The evaluation board includes four snap-on connectors so that it can directly use the driving wires used by TO240 modules.

The surface-mounted, top-side cooling ACEPACK SMIT package houses dual STTN6050H-12M1Y, automotive-qualified 60 A 1200 V thyristor, and achieves 600 A surge peak current and overvoltage robustness VDSM (DSM subscript) up to 1400 V. It also has an optimized tab-to-lead creepage distance of 4 mm, while the lead-to-lead creepage distance is 6.9 mm.

Product summary	
Evaluation board with dual ST SCRs in ACEPACK SMIT package in TO240 module form factor	STEVAL-TO240SCR
60 A 1200 V thyristor controlled half bridge in ACEPACK SMIT module	STTN6050H-12M1Y
Applications	Motor drive soft starter Solid state relay 3-phase or 1-phase controlled bridge AC motor brake

1 Schematics

Figure 1. STEVAL-TO240SCR schematic



2 Board versions

Table 1. STEVAL-TO240SCR versions

Finished good	Schematic diagrams	Bill of materials
STV\$TO240SCRA ⁽¹⁾	STV\$TO240SCRA schematic diagrams	STV\$TO240SCRA bill of materials

1. This code identifies the STEVAL-TO240SCR evaluation board first version.

Revision history

Table 2. Document revision history

Date	Revision	Changes
07-May-2025	1	Initial release.
09-Oct-2025	2	Updated document title and cover image. General revision to enhance the document and improve readability.

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