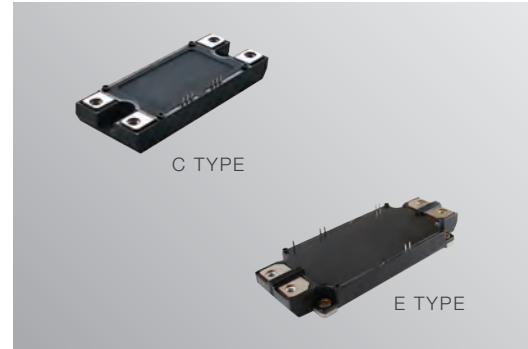


SiC Power Modules

Low ON resistance, low switching loss

GENERAL DESCRIPTION

ROHM offers Silicon Carbide (SiC) Power Modules in a variety of current ratings and packages. Features include a wide current range (80A to 600A, continuous) and 1200V V_{DSS} . Both half-bridge and chopper topologies are available. Unlike IGBTs, there is no tail current during turn-off, resulting in faster operation and reduced switching loss. And unlike silicon devices, the ON resistance remains relatively constant even at high temperatures, minimizing conduction losses. Select between either 2nd generation planar (maximum short-circuit withstand time) or 3rd generation trench (reduced input capacitance and lower gate charge) types.



FEATURES

- Fast switching with low loss
- Maximum junction temperature = 175°C
- Devices rated for V_{DSS} = 1200V
- I_D rated from 80A to 600A
- Spice model and thermal models available
- 3rd gen trench technology delivers low input capacitance (C_{iss}) and low gate charge (Q_g)
- 2nd gen planar technology provides longer short-circuit withstand time
- No limitations on the use of the body diode

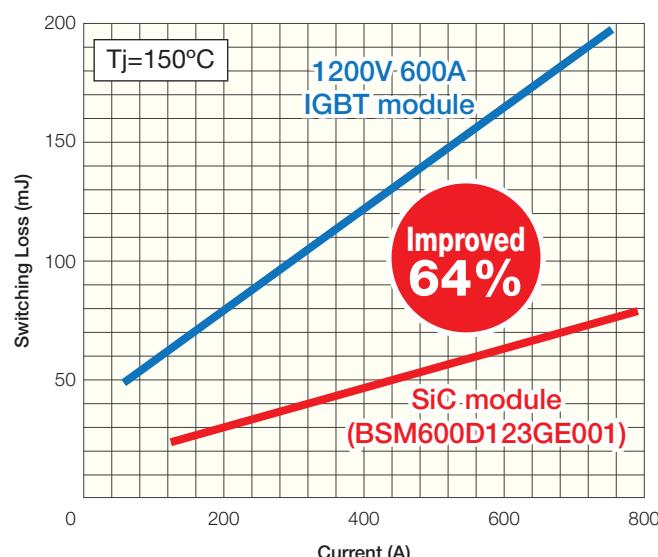
SPECIFICATIONS

- DC Blocking Voltage V_{DSS} = 1200V
- Characterized for switching losses
- Operating temperature range: -40°C to +175°C

ADVANTAGES

- No tail current during turn-off
- $R_{DS(on)}$ has a positive temperature coefficient, enabling easy parallel operation

CHARACTERISTICS



APPLICATIONS

- Inverters for Induction Heating
- Motor Drive Inverters
- Bidirectional Converters
- Solar Inverters
- Power Conditioners

Packages	W (typ) x D (typ) x H (max)	Stray Inductance
C	122mm x 16mm x 45mm	25 nH
E	152mm x 17mm x 62mm	13 nH
G	152mm x 17mm x 62mm	10 nH

CLICK [HERE](#) FOR MORE INFORMATION