STPOWER IGBT 650 V HB SERIES

Power efficiency for automotive conditions

Reliability of the device under Automotive stress conditions

Our high power 80 A IGBT (insulated gate bipolar transistor) in a TO-247LL package is designed for reliabe and efficient performance demanding in automotive applications. The high breakdown (HB) version is designed to withstand higher voltages which is especially advantageous for automotive power electronics and the through hole TO-247LL package is ensures good thermal performance while high currents and voltages. With an optimal balance between switching performance and on-state behavior (variant), ST' IGBTs are suitable for charging station, high frequency converters and power stage in Automotive board chargers and PFC.

KEY FEATURE & BENEFITS

- AEC-Q101 qualified
- High-speed switching series
- Maximum junction temperature: T_J = 175 °C
- Increased power density and compactness
- Low $V_{CE(sat)}$ = 1.65 V (typ.) @ I_C = 80 A
- Minimized tail current
- Tight parameter distribution
- Positive temperature $V_{CE(sat)}$ coefficient

KEY APPLICATIONS

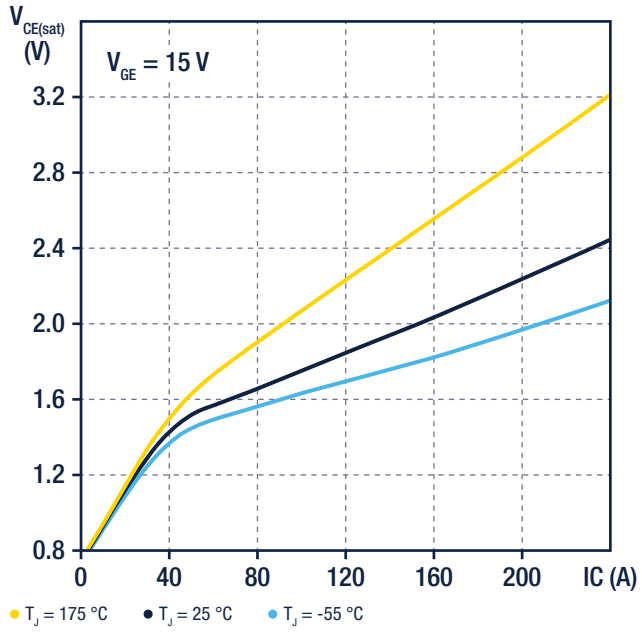
- Charging station
- On board chargers
- PFC
- High frequency converters

Ideal use in electric and hybrid vehicles charging system's and managing power flows during battery charging

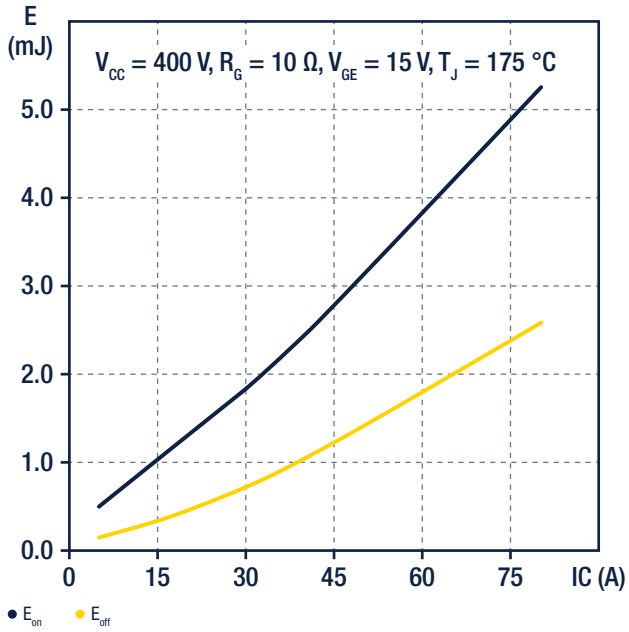
IGBT 80 HB Series

This IGBT is developed using an advanced proprietary trench gate field-stop structure. The device is part of the HB series of IGBTs, which offer an optimal balance between conduction and switching losses for higher efficiency converters any frequency. Furthermore, the slightly positive $V_{CE(sat)}$ temperature coefficient and very tight parameter distribution enable safer paralleling operation.

Saturation voltage characteristic



Switching energy



FIND OUT MORE

650 V HB series - High speed (16 to 60 kHz) - Products (st.com)

Order code: FL2406STPOWERHB