

## Product Overview

### FGH50T65SQD-F155: IGBT, 650 V, 50A Field Stop 4 Trench

For complete documentation, see the data sheet.

Using novel field stop IGBT technology, Fairchild's new series of field stop 4<sup>th</sup> generation IGBTs offer the optimum performance for solar inverter, UPS, welder, telecom, ESS and PFC applications where low conduction and switching losses are essential.

### Features

- Maximum Junction Temperature:  $T_J = 175^\circ\text{C}$
- Positive Temperature Co-efficient for Easy Parallel Operating
- High Current Capability
- Low Saturation Voltage:  $V_{CE(sat)} = 1.6\text{ V(Typ.) @ } I_C = 75\text{ A}$
- 100% of the Parts Tested for  $I_{LM}(1)$
- High Input Impedance
- Fast Switching
- Tighten Parameter Distribution
- RoHS Compliant

### Applications

- Industrial inverter
- UPS
- Welder
- PFC

### Part Electrical Specifications

| Product          | Compliance             | Status | $V_{ES}^{(BR)C}$<br>Typ<br>(V) | $I_C$<br>Max<br>(A) | $V_{CE(sat)}$<br>Typ<br>(V) | $V_F$<br>Typ<br>(V) | $E_{off}$<br>Typ<br>(mJ) | $E_{on}$<br>Typ<br>(mJ) | $T_{rr}$<br>Typ<br>(ns) | $I_{rr}$<br>Typ<br>(A) | Gate<br>Charge<br>Typ<br>(nC) | Short<br>Circuit<br>Withstand<br>( $\mu\text{s}$ ) | $E_{AS}$<br>Typ<br>(mJ) | $P_D$<br>Max<br>(W) | Co-<br>Pack<br>aged<br>Diode | Pack<br>age<br>Type |
|------------------|------------------------|--------|--------------------------------|---------------------|-----------------------------|---------------------|--------------------------|-------------------------|-------------------------|------------------------|-------------------------------|--|-------------------------|---------------------|------------------------------|---------------------|
| FGH50T65SQD-F155 | Pb-free<br>Halide free | Active | 650                            |                     |                             | 2.2                 | 0.11                     | 0.402                   |                         | -                      | 99                            | -  | -                       | 268                 |                              | TO-247-3            |

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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