

## Product Overview

### FGH40T65SP\_F085: IGBT, 650V, 40A Field Stop Trench

For complete documentation, see the data sheet.

Using the novel field stop 3rd generation IGBT technology, FGH40T65SPD\_F085 offers the optimum performance with both low conduction loss and switching loss for a high efficiency operation in various applications, while provides 50V higher blocking voltage and rugged high current switching reliability. Meanwhile, this part also offers an advantage of outstanding performance in parallel operation.

### Features

- AEC-Q101 Qualified
- Low Saturation Voltage :  $V_{CE(sat)} = 1.85 \text{ V(Typ.) @ } I_C = 40 \text{ A}$
- 100% of the parts are dynamically tested (Note 1)
- Short Circuit Ruggedness >  $5 \mu\text{s @ } 25 \text{ }^\circ\text{C}$
- Maximum Junction Temperature :  $T_J = 175 \text{ }^\circ\text{C}$
- Fast Switching
- Tight Parameter Distribution
- Positive Temperature Co-efficient for Easy Parallel Operating
- Copacked with soft, fast recovery diode
- RoHS Compliant

For more features, see the data sheet

### Applications

- E-compressor
- PTC Heater
- Motor Driver

### Part Electrical Specifications

Product	Compliance	Status	$V_{ES}^{(BR)C}$ Typ (V)	$I_C$ Max (A)	$V_{GE(sat)}$ Typ (V)	$V_F$ Typ (V)	$E_{off}$ Typ (mJ)	$E_{on}$ Typ (mJ)	$T_{rr}$ Typ (ns)	$I_{rr}$ Typ (A)	Gate Charge Typ (nC)	Short Circuit Withstand ( $\mu\text{s}$ )	$E_{AS}$ Typ (mJ)	$P_D$ Max (W)	Co- Pack aged Diode	Pack age Type
FGH40T65SPD-F085	AEC Qualified PPAP Capable Pb-free	Active	650	80		2.2	0.27	1.16	35	-	36	5	-	267	Yes	TO-247-3

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

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