

# FP7G50US60

## Transfer Molded Type IGBT Module

### General Description

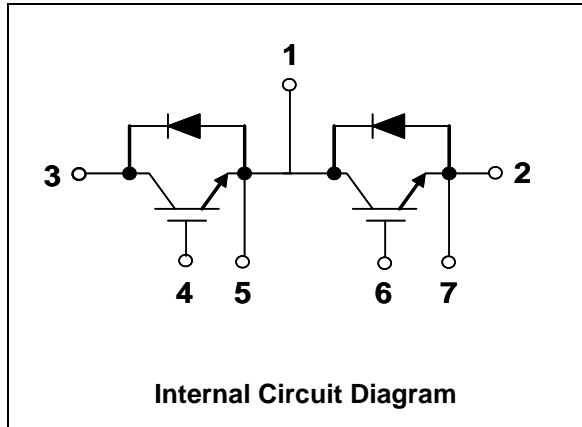
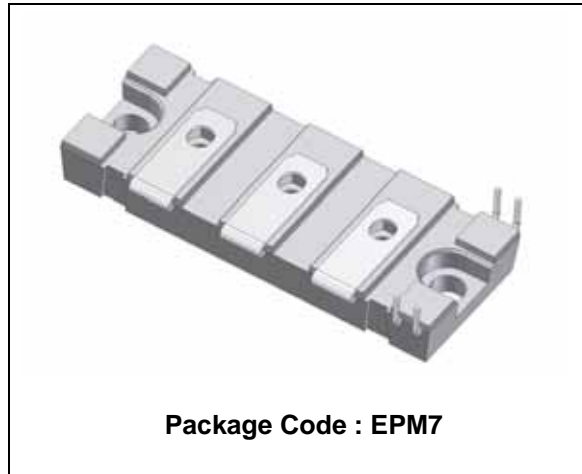
Fairchild's New IGBT Modules ( Transfer Molded Type ) provide low conduction and switching losses as well as short circuit ruggedness. They are designed for applications such as Motor control, Uninterrupted Power Supplies (UPS) and general Inverters where short circuit ruggedness is a required feature.

### Features

- Short Circuit rated 10us @Tc=100°C, Vge=15V
- High Speed Switching
- Low Saturation Voltage : Vce(sat) =2.2V @Ic=50A
- High Input Impedance
- Fast & Soft Anti-Parallel FWD

### Application

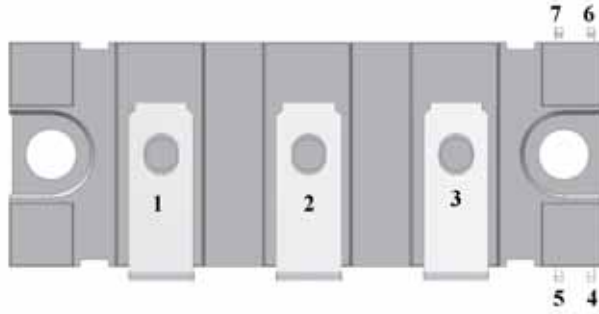
- Welders
- AC & DC Motor Controls
- General Purpose Inverters
- Robotics
- Servo Controls
- UPS



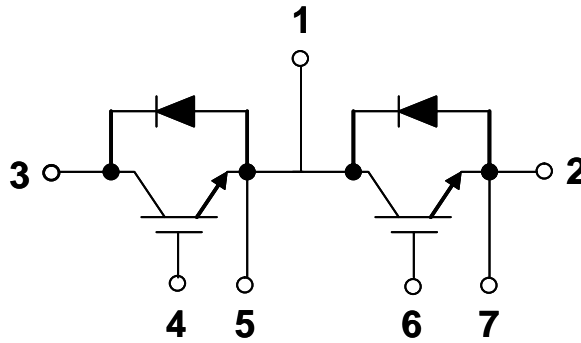
### Absolute Maximum Ratings

Symbol	Description	Rating	Units
V <sub>CES</sub>	Collector-Emitter Voltage	600	V
V <sub>GES</sub>	Gate-Emitter Voltage	± 20	V
I <sub>C</sub>	Collector Current @ T <sub>C</sub> = 25°C	50	A
I <sub>CM(1)</sub>	Pulsed Collector Current	100	A
I <sub>F</sub>	Diode Continuous Forward Current @ T <sub>C</sub> = 100°C	50	A
I <sub>FM</sub>	Diode Maximum Forward Current	100	A
T <sub>SC</sub>	Short Circuit Withstand Time @ T <sub>C</sub> = 100°C	10	us
P <sub>D</sub>	Maximum Power Dissipation @ T <sub>C</sub> = 25°C	250	W
T <sub>J</sub>	Operating Junction Temperature	-40 to +125	°C
T <sub>stg</sub>	Storage Temperature Range	-40 to +125	°C
V <sub>iso</sub>	Isolation Voltage @ AC 1minute	2500	V
Mounting	Power Terminals Screw : M5	2.0	N.m
Torque	Mounting Screw : M5	2.0	N.m

## Pin Configuration and Pin Description



Top View



Internal Circuit Diagram

### Pin Description

Pin Number	Pin Description
1	Emitter of Q1, IGBT, Collector of Q2, IGBT
2	Emitter of Q2, IGBT
3	Collector of Q1, IGBT
4	Gate of Q1, IGBT
5	Emitter of Q1, IGBT
6	Gate of Q2, IGBT
7	Emitter of Q2, IGBT