



# FGPF30N45T

## 450V, 30A PDP Trench IGBT

### Features

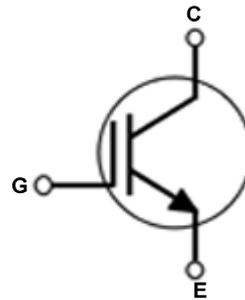
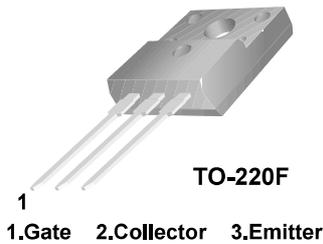
- High Current Capability
- Low saturation voltage:  $V_{CE(sat)} = 1.55V @ I_C = 30A$
- High input impedance
- Fast switching

### General Description

Using Novel Trench IGBT Technology, Fairchild's new series of trench IGBTs offer the optimum performance for PDP applications where low conduction and switching losses are essential.

### Applications

- PDP System



### Absolute Maximum Ratings

Symbol	Description	Ratings	Units
$V_{CES}$	Collector to Emitter Voltage	450	V
$V_{GES}$	Gate to Emitter Voltage	$\pm 30$	V
$I_{CM}$ (1)	Pulsed Collector Current @ $T_C = 25^\circ C$	120	A
$P_D$	Maximum Power Dissipation @ $T_C = 25^\circ C$	50.4	W
	Maximum Power Dissipation @ $T_C = 100^\circ C$	20.1	W
$T_J$	Operating Junction Temperature	-55 to +150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55 to +150	$^\circ C$
$T_L$	Maximum Lead Temp. for soldering Purposes, 1/8" from case for 5 seconds	300	$^\circ C$

**Notes:**

1: Repetitive test, Pulse width=100usec, Duty=0.1

\*  $I_{c\_pluse}$  limited by max  $T_J$

### Thermal Characteristics

Symbol	Parameter	Typ.	Max.	Units
$R_{\theta JC}$ (IGBT)	Thermal Resistance, Junction to Case	-	2.48	$^\circ C/W$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	-	62.5	$^\circ C/W$