

TPS20N60T

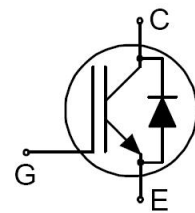
600V 20A Trench-FS IGBT

Features

- Advanced Trench+FS (Field Stop) IGBT technology
- Low Collector-Emitter Saturation voltage, typical data is 1.7V @ 20A.
- Easy parallel switching capability due to positive Temperature coefficient in V_{ce} .
- 10uS short-circuit SOA
- Fast switching
- High input impedance
- Pb- Free product
- Marking Code TPS20N60T



TO-247



Schematic Diagram

Applications

- General general-purpose inverter
- Motor control
- Intelligent power module.

Electrical characteristics($T_J = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Test conditions	Units	Min.	Typ.	Max.
$V_{(BR)CES}$	Collector - Emitter breakdown voltage	$V_{GE} = 0V, I_D = 250\mu A$	V	600	—	—
$V_{CE(sat)}$	Collector-Emitter Saturation voltage	$V_{GE} = 15V, I_C = 20A, T_C = 25^\circ\text{C}$	V	—	1.7	1.95
		$V_{GE} = 15V, I_C = 20A, T_C = 125^\circ\text{C}$	V	—	1.95	—
$V_{GE(th)}$	Gate threshold voltage	$V_{GE} = V_{CE}, I_C = 0.25 \text{ mA}$	V	4.0	5.2	6.5
V_F	Diode Forward Voltage	$I_F = 20A$	V	—	1.8	2.3
I_{GES}	Gate to Emitter Forward Leakage	$V_{ge} = +30V$	nA	—	—	200
I_{GESR}	Gate to Emitter reverse Leakage	$V_{ge} = -30V$		-200	—	—
I_{CES}	Zero gate voltage collector current	$V_{CE} = 600V$	μA	—	—	25