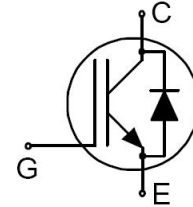


600V , 20A , Trench-FS IGBT

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 Vce.
- ◆ 10uS short-circuit SOA
- ◆ Fast switching
- ◆ High input impedance
- ◆ Pb- Free product
- ◆ Marking Code XNS20N60T



Schematic Diagram



D2pak

Applications

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

Electrical characteristics(T_J = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Units	Min.	Typ.	Max.
V _{(BR)CES}	Collector - Emitter breakdown voltage	V _{GE} = 0V, I _D =250uA	V	600	—	—
V _{CE(sat)}	Collector-Emitter Saturation voltage	V _{GE} =15V, I _C =20A,T _C =25°C	V	—	1.7	1.95
		V _{GE} =15V, I _C =20A,T _C =125°C	V	—	1.95	—
V _{GE(th)}	Gate threshold voltage	V _{GE} = V _{CE} , I _c = 0.25 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	uA	—	—	25