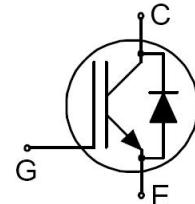


600V , 20A , Trench-FS IGBT**Features**

- 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(TJ = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Units	Min.	Typ.	Max.
$V_{(BR)CES}$	Collector - Emitter breakdown voltage	$V_{GE} = 0V, I_D = 250\mu A$	V	600	—	—
$V_{CE(sat)}$	Collector-Emitter Saturation voltage	$V_{GE}=15V, I_c=20A, T_c=25^{\circ}C$	V	—	1.7	1.95
		$V_{GE}=15V, I_c=20A, T_c=125^{\circ}C$	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	$V_{CE} = 600V$	uA	—	—	25