

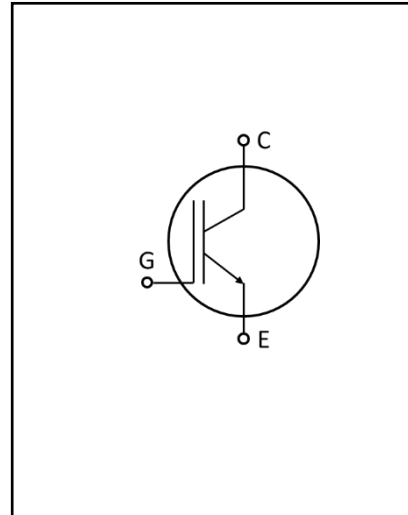
## IGBT Chip

### Features:

- 750V Trench & Field stop technology
- Low  $V_{cesat}$
- Positive temperature coefficient
- Easy paralleling

### Applications:

- Power drives



### Mechanical parameters

Die size	10.95×9.7	mm <sup>2</sup>
Emitter pad size	See chip drawing	
Gate pad size	1.5×0.8	
Area total	106.22	
Thickness	70	μm
Wafer size	200	mm
Passivation front side	Si <sub>3</sub> N <sub>4</sub> +Polyimide	
Pad metal	5000 nm AlCu	
Backside metal	Ni/Ag	

### Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-Emitter voltage	$V_{CE}$	750	V
DC collector current	$I_C$	275	A
Operating junction temperature	$T_{vj}$	-40 ... +150	°C
Gate emitter voltage	$V_{GE}$	$\pm 25$	V
Short circuit data	$t_{SC}$	6	$\mu s$

### Static Characteristics (tested on wafer), $T_{vj}=25^\circ C$

Parameter	Symbol	Conditions	Value			Unit
			Min.	Typ.	Max.	
Collector-Emitter breakdown voltage	$V_{(BR)CES}$	$V_{GE}=0V, I_C=3.2mA$	750			V
Collector-Emitter saturation voltage	$V_{CEsat}$	$V_{GE}=15V, I_C=275A$		1.3	1.75	
Gate-Emitter threshold voltage	$V_{GE(th)}$	$I_C=3.2mA, V_{GE}=V_{CE}$	5.0	5.8	6.5	
Zero gate voltage collector current	$I_{CES}$	$V_{CE}=750V, V_{GE}=0V$			10	$\mu A$
Gate-Emitter leakage current	$I_{GES}$	$V_{CE}=0V, V_{GE}=25V$			200	nA

**Chip Drawing**

Unit: um

