

Silicon FS Trench IGBT

◆ Features:

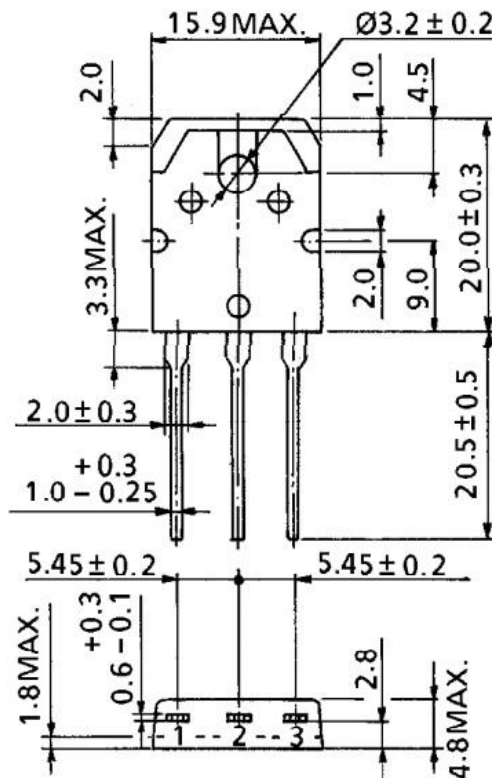
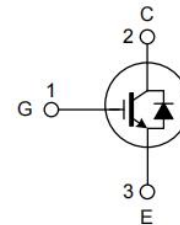
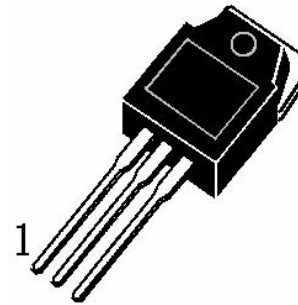
- ✧ Saturation pressure decreases and switch speed is fast
饱和压降低，开关速度快
- ✧ Easy to use in parallel
易于并联使用
- ✧ High reliability and thermal stability
高可靠性及热稳定性
- ✧ Built-in quick-recovery diode
内置快恢复二极管

◆ Applications

- ✧ Frequency transformer
变频器
- ✧ UPS
UPS
- ✧ Inverter welding machine
逆变焊机



TO-3PNB



◆ Absolute Maximum Ratings (Tc=25°C)

Symbol	Parameters	Ratings	Unit
V _{CES}	Maximum collector-emitter DC voltage 高集电极-发射极直流电压	1200	V
V _{GES}	Maximum gate-emitter DC voltage 最高栅极-发射极直流电压	±20	V
I _{DM}	Collector DC current 集电极直流电流	25	A
T _{stg}	Storage temperature range 存储温度范围	-55~150	°C
T _j	Max. Operating junction temperature 最大结温	150	°C

◆ Electrical characteristics (Tc=25°C unless otherwise noted)

Symbol	Parameters	Min	Typ	Max	Units	Conditions
Static Characteristics						
V _{CES}	The collector-emitter breakdown voltage 集电极-发射极击穿电压	1200	--	--	V	V _{GE} =0V, I _{CE} =250uA
I _{CES}	The collector drain current under zero gate pressure 零栅压下集电极漏电流	--	--	1.0	mA	V _{GE} =0V, V _{CE} =1200V
I _{GES}	The drain current of the gate body 栅极体漏电流	--	--	±250	nA	V _{GE} =±20V
V _{CE(sat)}	The collector-emitter is saturated pressure drop 集电极-发射极饱和压降	--	1.95	2.5	V	I _C =25A, V _{GE} =15V
V _{GE(th)}	Threshold voltage 阈值电压	4.5	5.8	7.5	V	I _C =250uA, V _{CE} =V _{GE}
V _{FM}	Diode with a forward pressure drop 二极管正向压降	--	2.7	3.0	V	I _F =25A
Switching Characteristics						

**OGH25T120****Silicon FS Trench IGBT**

T _{d (on)}	Turn-On Delay Time 开启延迟时间	--	34	--	ns	V _{CE} =600V,I _C =25A, R _g =10 Ω ,V _{GE} =15V, 感性负载,Ta=25℃
T _r	Rise Time 上升时间	--	36	--	ns	
T _{d (off)}	Turn-Off Delay Time 关闭延迟时间	--	198	--	ns	
T _f	Fall Time 下降时间	--	175	--	ns	
Q _g	Total Gate Charge 栅极总电荷	--	142	--	nC	V _{CE} =960V,I _C =25A, V _{GE} =15V
Q _{gs}	Gate-Source Charge 栅源极电荷	--	23	--	nC	
Q _{gd}	Gate-Drain Charge 栅漏极电荷	--	75	--	nC	
Dynamic Characteristics						
C _{iss}	Input Capacitance 输入电容	--	2375	--	pF	V _{CE} =25V,V _{GE} =0V f=1MHz
C _{oss}	Output Capacitance 输出电容	--	64	--	pF	
C _{rss}	Reverse Transfer Capacitance 反向传输电容	--	47	--	pF	
T _{rr}	Reverse recovery time 反向恢复时间	--	200	--	nS	I _F =25A di/dt=200A/uS
R _{th(j-c)}	Thermal Resistance, Junction to Case 结到外壳的热阻	--	--	0.55	℃/W	