

◆ Features:

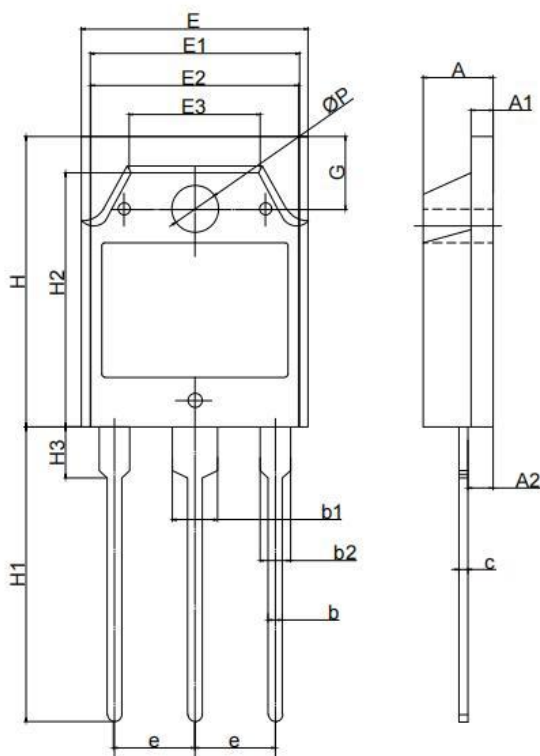
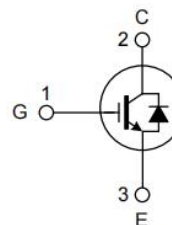
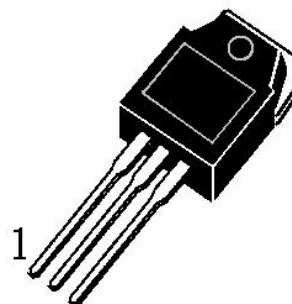
- ✧ Saturation pressure decreases and switch speed is fast
饱和压降低，开关速度快
- ✧ Easy to use in parallel
易于并联使用
- ✧ High reliability and thermal stability
高可靠性及热稳定性
- ✧ Built-in quick-recovery diode
内置快恢复二极管

◆ Applications

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



TO-3PNB



TO-3PNB尺寸表/mm			
Symbol	Min	Nom	Max
A	4.60	4.80	5.00
A1	1.30	1.50	1.60
A2	1.40	1.50	1.60
b	0.80	1.00	1.20
b1	2.90	3.10	3.30
b2	1.90	2.10	2.30
c	0.50	0.60	0.70
e	5.25	5.45	5.65
E	15.20	15.60	16.00
E1	13.20	13.40	13.60
E2	13.10	13.50	13.50
E3	9.10	9.30	9.50
H	19.80	20.00	20.20
H1	20.10	20.30	20.50
H2	18.50	18.70	18.90
H3	3.20	3.50	3.80
G	4.80	5.00	5.20
ØP	3.00	3.20	3.40

◆ 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	650	V
V _{GES}	Maximum gate-emitter DC voltage 最高栅极-发射极直流电压	±20	V
I _C	Collector DC current (Tc=25° C) 集电极直流电流	100	A
	Collector DC current (Tc=100° C) 集电极直流电流	50	
I _F	Diode current 二极管电流	30	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	175	°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	650	--	--	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	--	--	5.0	uA	V _{GE} =0V, V _{CE} =650V
I _{GES}	The drain current of the gate body 栅极体漏电流	--	--	±1	uA	V _{GE} =±20V
V _{CE(sat)}	The collector-emitter is saturated pressure drop 集电极-发射极饱和压降	--	2.2	2.5	V	I _C =50A, V _{GE} =15V

**OGH50T65****Silicon FS Trench IGBT**

V _{GE(th)}	Threshold voltage 阈值电压	4.0	5.35	6.5	V	I _C =250uA,V _{CE} =V _{GE}
V _{FM}	Diode with a forward pressure drop 二极管正向压降	--	1.45	1.8	V	I _F =30A
Switching Characteristics						
T _{d (on)}	Turn-On Delay Time 开启延迟时间	--	45	--	ns	V _{CE} =400V,I _C =50A, R _g =10 Ω ,V _{GE} =15V, 感性负载,Ta=25℃
T _r	Rise Time 上升时间	--	145	--	ns	
T _{d (off)}	Turn-Off Delay Time 关闭延迟时间	--	125	--	ns	
T _f	Fall Time 下降时间	--	130	--	ns	
Q _g	Total Gate Charge 栅极总电荷	--	145	--	nC	V _{CE} =400V,I _C =50A, V _{GE} =15V
Q _{gs}	Gate-Source Charge 栅源极电荷	--	48	--	nC	
Q _{gd}	Gate-Drain Charge 栅漏极电荷	--	46	--	nC	
Dynamic Characteristics						
C _{iss}	Input Capacitance 输入电容	--	4530	--	pF	V _{CE} =30V,V _{GE} =0V f=1MHz
C _{oss}	Output Capacitance 输出电容	--	90	--	pF	
C _{rss}	Reverse Transfer Capacitance 反向传输电容	--	41	--	pF	
T _{rr}	Reverse recovery time 反向恢复时间	--	38	50	nS	I _F =0.5A I _R =1A I _{rr} =0.25A
R _{th(j-c)}	Thermal Resistance, Junction to Case 结到外壳的热阻	--	--	0.52	℃/W	