

**主要参数 MAIN CHARACTERISTICS**

$I_c$	7A
$V_{CEO}$	200V
$P_c$	60W

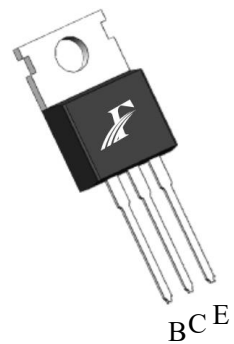
**用途 APPLICATIONS**

高频开关电源	High frequency switching power supply
高频功率变换	High frequency power transform
一般功率放大电路	Commonly power amplifier circuit

**产品特性 FEATURES**

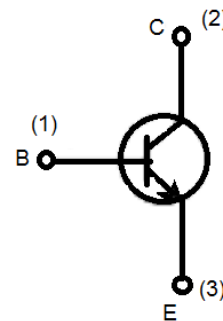
硅外延	Epitaxial silicon
高开关速度	High switching speed
高电流容量	High current capability
符合 RoHS 标准	ROHS compliant

**封装形式 Package**



TO-220

**等效电路 Equivalent Circuit**



**绝对最大额定值 ABSOLUTE RATINGS ( $T_c=25^\circ\text{C}$ )**

项目 Parameter	符号 Symbol	数值 Value	单位 Unit
集电极—基极直流电压 Collector- Base Voltage ( $I_E=0$ )	$V_{CBO}$	400	V
集电极—发射极直流电压 Collector- Emitter Voltage ( $I_B=0$ )	$V_{CEO}$	200	V
发射极—基极直流电压 Emitter-Base Voltage ( $I_C=0$ )	$V_{EBO}$	9	V
最大集电极直流电流 Collector Current (DC)	$I_c$	7	A
最大集电极耗散功率 Total Dissipation	$P_c$	60	W
最高结温 Junction Temperature	$T_j$	150	$^\circ\text{C}$
贮存温度 Storage Temperature	$T_{stg}$	-55~+150	$^\circ\text{C}$

**热特性 THERMAL CHARACTERISTIC**

项目 Parameter	符号 Symbol	最小值 (min)	最大值 (max)	单位 Unit
结到管壳的热阻 Thermal Resistance Junction Case	$R_{th(j-a)}$	-	2.08	$^\circ\text{C/W}$

## 电特性 ELECTRICAL CHARACTERISTICS

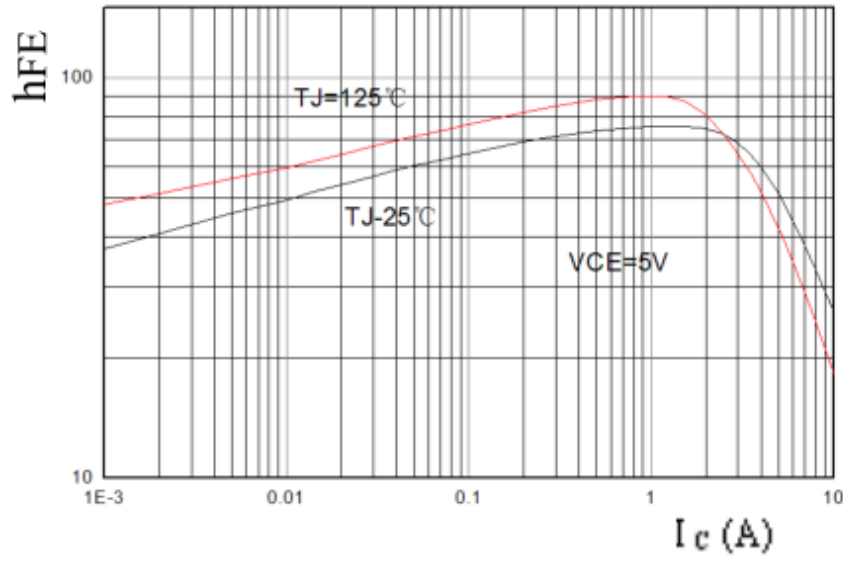
项目 Parameter	测试条件 Tests conditions	最小值 (min)	典型值 (typ)	最大值 (max)	单位 Unit
V(BR) <sub>CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	400	-	-	V
V(BR) <sub>CEO</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0	200	-	-	V
V(BR) <sub>EBO</sub>	I <sub>E</sub> =1mA, I <sub>C</sub> =0	9	-	-	V
I <sub>CBO</sub>	V <sub>CB</sub> =400V, I <sub>E</sub> =0	--		1	μA
I <sub>CEO</sub>	V <sub>CE</sub> =200V, I <sub>E</sub> =0	-	-	5	μA
I <sub>EBO</sub>	V <sub>EB</sub> =9V, I <sub>C</sub> =0	-	-	1	μA
H <sub>fe</sub> (1) *	V <sub>CE</sub> =5V, I <sub>C</sub> =2A	60	-	85	
H <sub>fe</sub> (2) *	V <sub>CE</sub> =5V, I <sub>C</sub> =7A	15	-	-	
V <sub>CE(sat)</sub> *	I <sub>C</sub> =5A, I <sub>B</sub> =0.5A	-	0.3	0.75	V
V <sub>BE(sat)</sub> *	I <sub>C</sub> =5A, I <sub>B</sub> =0.5A	-	0.3	0.75	V
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.5A, f=1MHz	10	-	-	MHz

\*Pulse Test: PW≤300ms, Duty Cycle≤2%

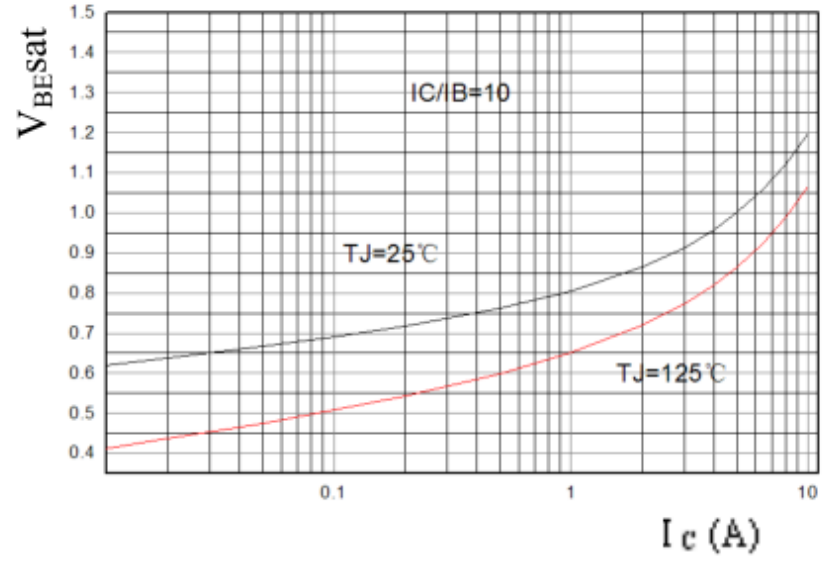
特性曲线

Typical Performance Characteristics

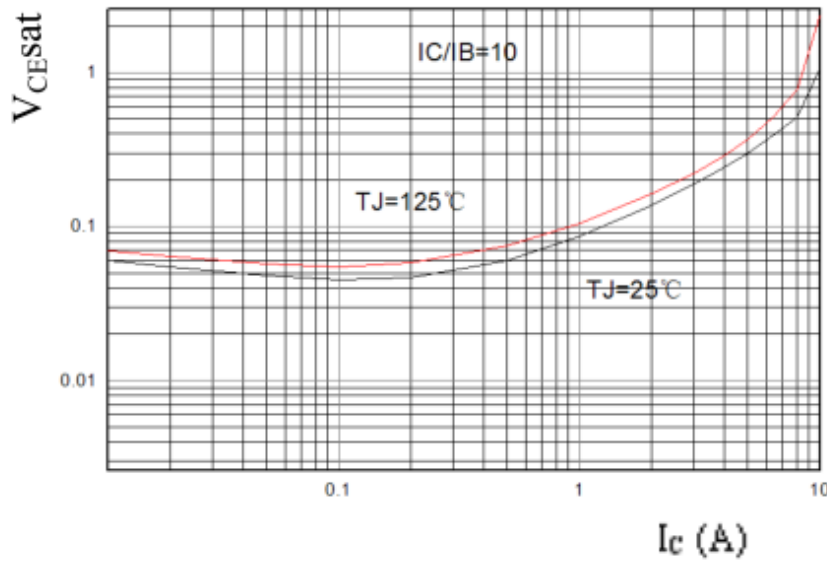
**hFE - I<sub>C</sub>**



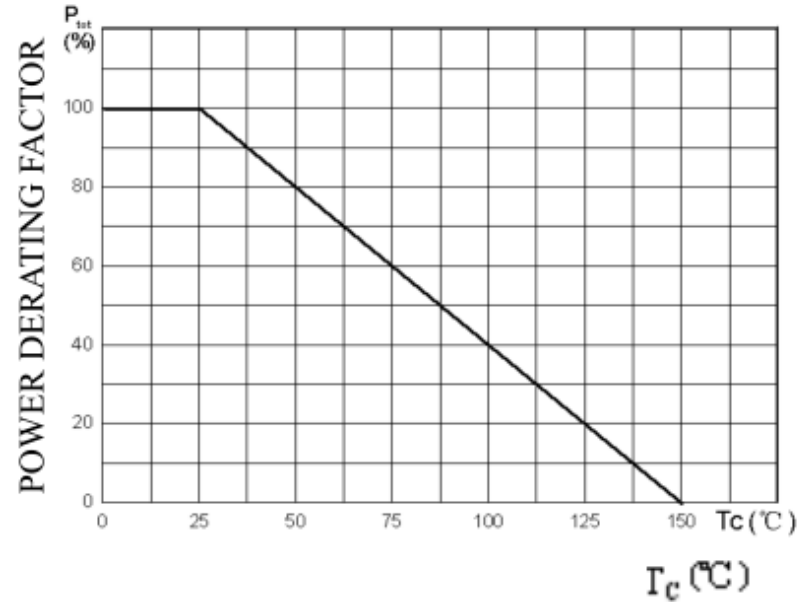
**V<sub>BE</sub> (sat) - I<sub>C</sub>**



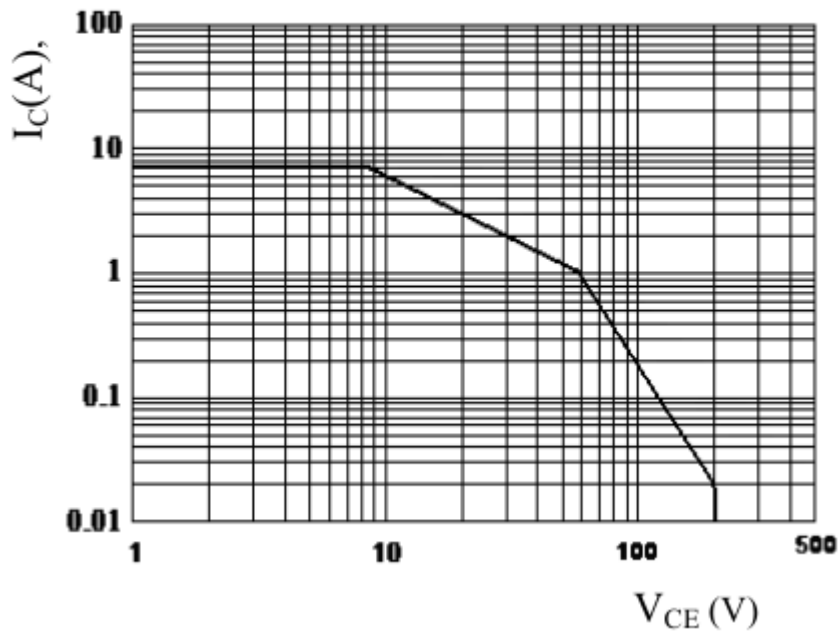
**V<sub>CE(sat)</sub> - I<sub>C</sub>**



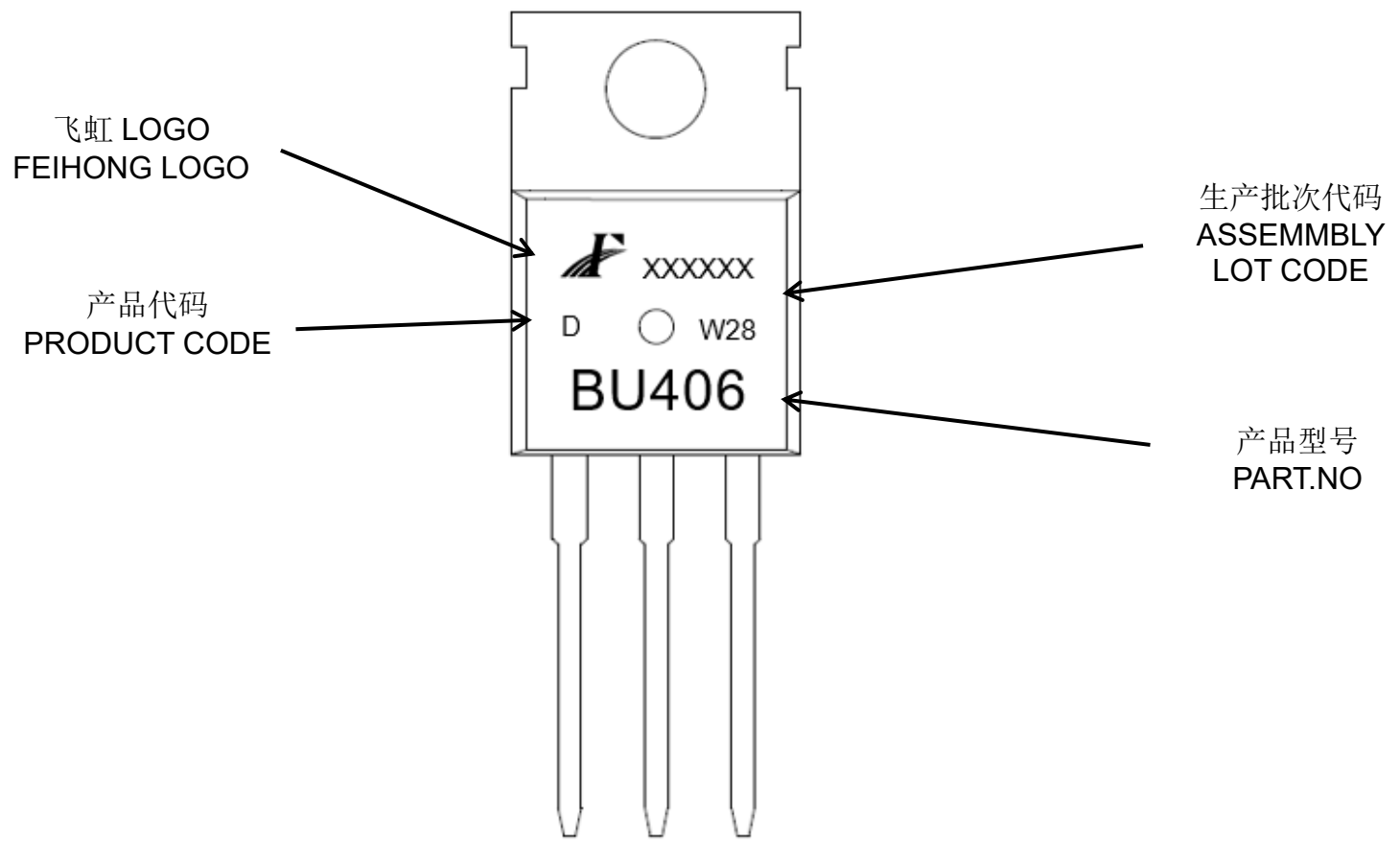
**P<sub>C</sub>-T<sub>C</sub>**



**SOA**



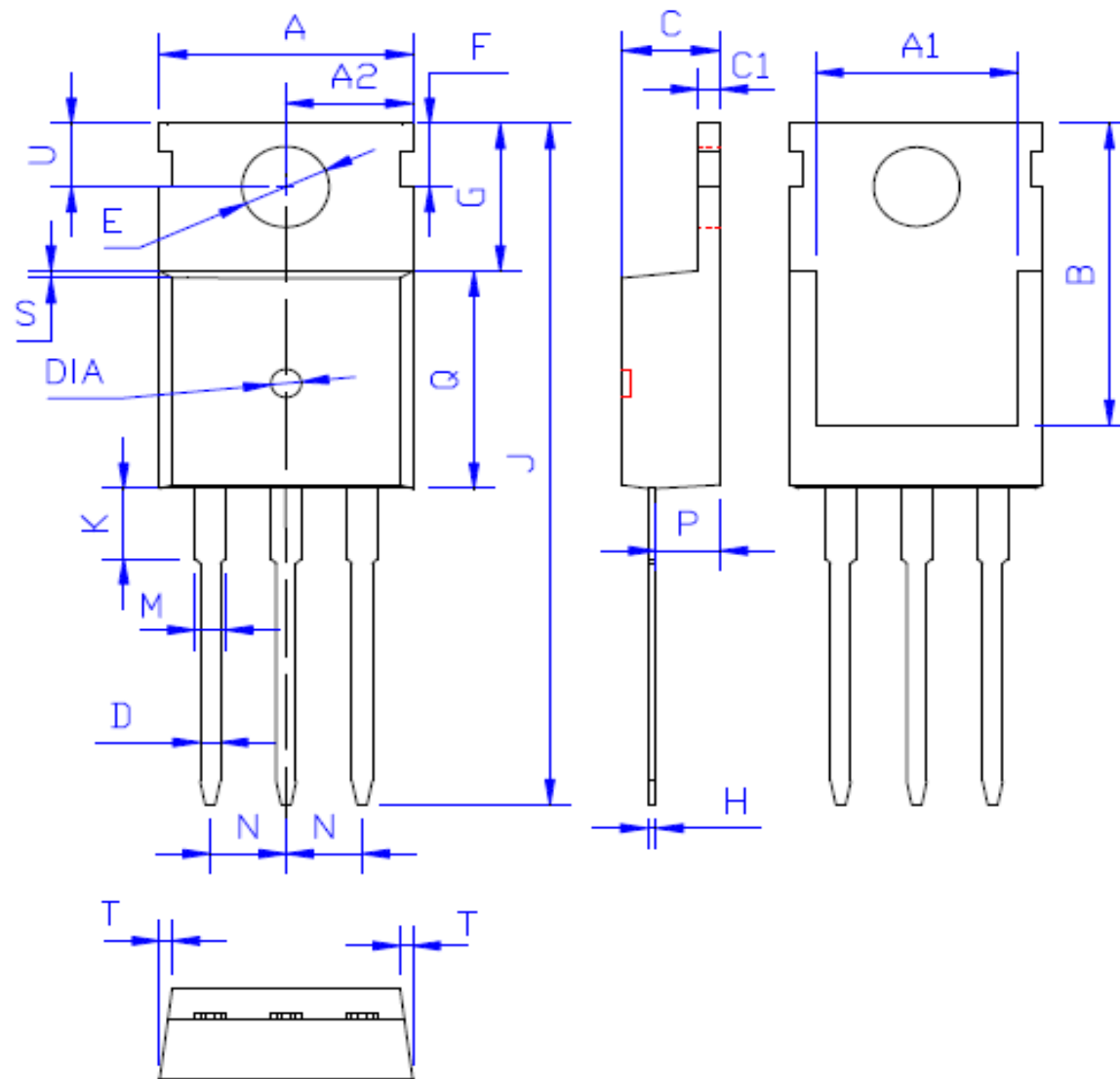
印记 Marking:



外形尺寸:

Package Dimension:

TO-220



DIM	MILLIMETERS
A	10.00 ± 0.30
A1	8.00 ± 0.30
A2	5.00 ± 0.30
B	13.20 ± 0.40
C	4.50 ± 0.20
C1	1.30 ± 0.20
D	0.80 ± 0.20
E	3.60 ± 0.20
F	3.00 ± 0.30
G	6.60 ± 0.40
H	0.50 ± 0.20
J	28.88 ± 0.50
K	3.00 ± 0.30
M	1.30 ± 0.30
N	Typical 2.54
P	2.40 ± 0.40
Q	9.20 ± 0.40
S	0.25 ± 0.15
T	0.25 ± 0.15
U	2.80 ± 0.30
DIA	宽 1.50 ± 0.10 深 0.50 MAX

(Units: mm)