



# 晶体管 TRANSISTOR TIP42CB

## 主要参数 MAIN CHARACTERISTICS

I <sub>C</sub>	-6A
V <sub>CEO</sub>	-100V
P <sub>C</sub>	65W

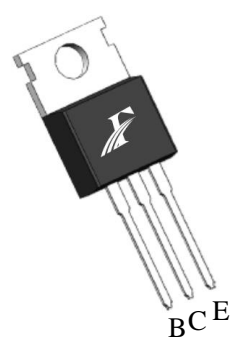
## 用途 APPLICATIONS

应用于中功率线性转换电路	Medium Power Linear Switching Applications
--------------	--

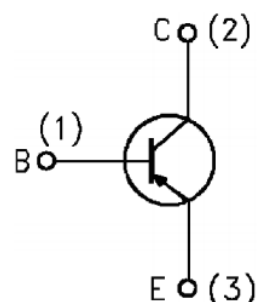
## 产品特性 FEATURES

硅外延	Epitaxial silicon
高开关速度	High switching speed
与 TIP41C 互补	Complementary to TIP41C
RoHS 产品	RoHS product

## 封装形式 Package



TO-220



## 绝对最大额定值 ABSOLUTE RATINGS (T<sub>c</sub>=25°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 <sub>E</sub> =0 )	V <sub>CB0</sub>	-150	V
集电极—发射极直流电压 Collector- Emitter Voltage ( I <sub>B</sub> =0 )	V <sub>CEO</sub>	-100	V
发射极—基极直流电压 Emitter-Base Voltage ( I <sub>C</sub> =0 )	V <sub>EB0</sub>	-7	V
最大集电极直流电流 Collector Current ( DC )	I <sub>C</sub>	-6	A
最大集电极耗散功率 Total Dissipation ( TO-92 )	P <sub>C</sub>	65	W
最高结温 Junction Temperature	T <sub>j</sub>	150	°C
贮存温度 Storage Temperature	T <sub>stg</sub>	-55~+150	°C

## 热特性 THERMAL CHARACTERISTIC

项目 Parameter	符号 Symbol	最小值 (min)	最大值 (max)	单位 Unit
结到环境的热阻 Thermal Resistance Junction Ambient	R <sub>th(j-a)</sub>	-	125	°C/W

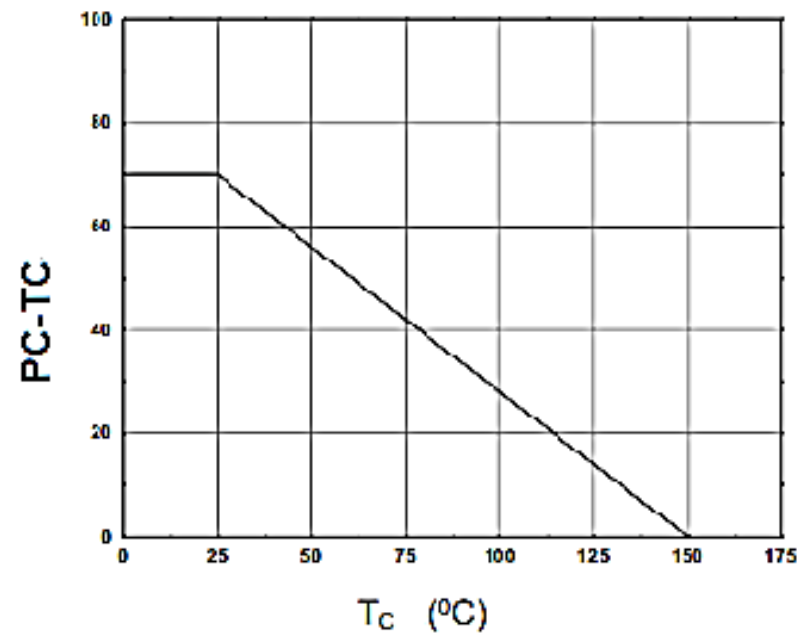
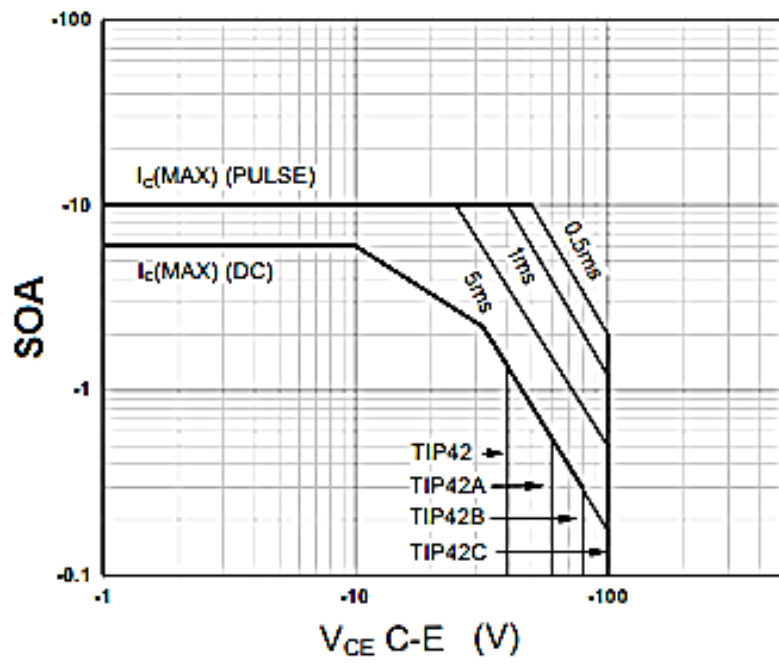
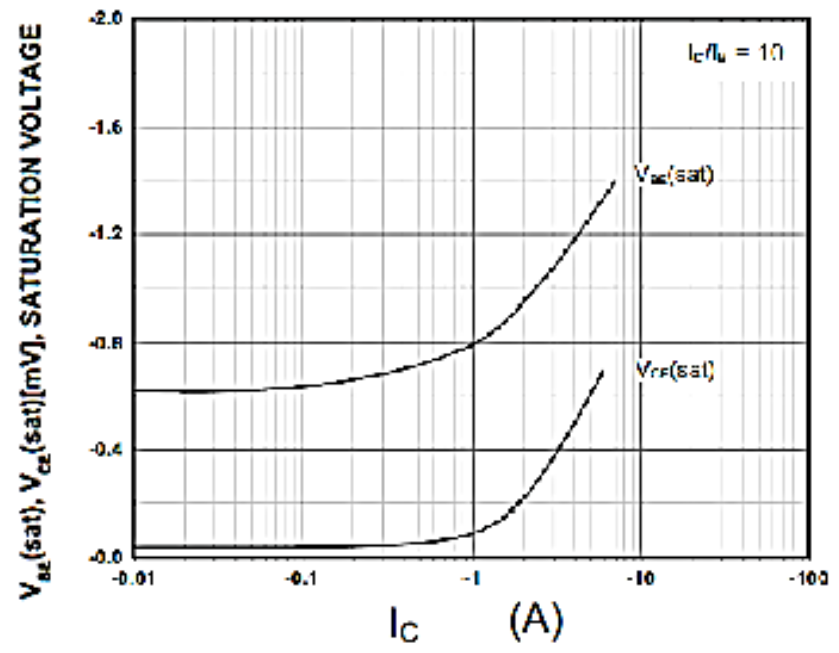
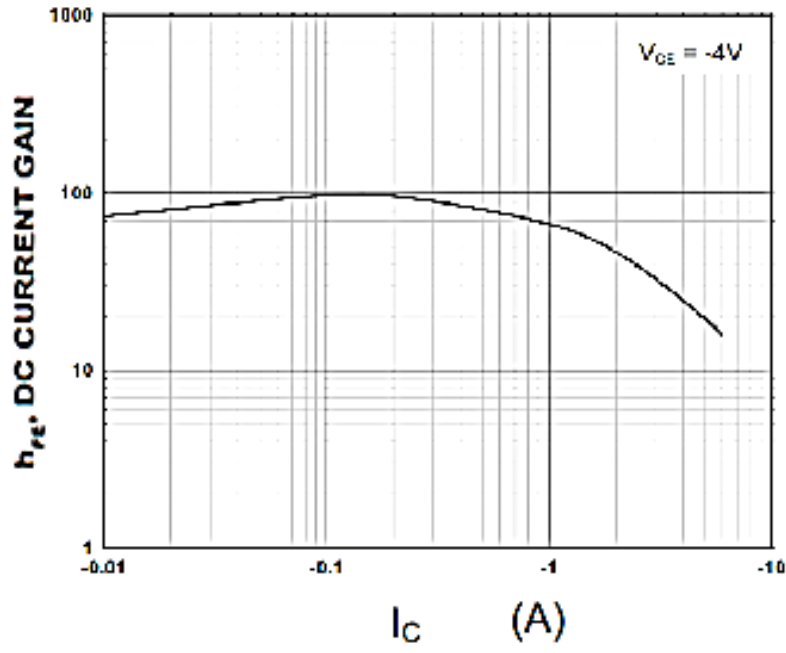
## 电特性 ELECTRICAL CHARACTERISTICS

项目 Parameter	测试条件 Tests conditions	最小值 (min)	典型值 (typ)	最大值 (max)	单位 Unit
$V(BR)_{CBO}$	$I_C=-100\mu A, I_E=0$	-100	-	-	V
$V(BR)_{CEO}$	$I_C=-10mA, I_B=0$	-100	-	-	V
$V(BR)_{EBO}$	$I_E=-1mA, I_C=0$	-7	-	-	V
$I_{CEO}$	$V_{CB}=-60V, I_E=0$	-	-	-0.7	mA
$I_{EBO}$	$V_{EB}=-5V, I_C=0$	-	-	-1	mA
$H_{fe}(1)$ *	$V_{CE}=-4V, I_C=-3A$	15	-	80	
$H_{fe}(2)$ *	$V_{CE}=-4V, I_C=-0.3A$	30	-	-	
$V_{CE(sat)}$ *	$I_C=6A, I_B=-0.6A$	-	-	-1.5	V
$V_{BE(sat)}$ *	$I_C=6A, I_B=-0.6A$	-	-	-2.0	V
$f_T$	$V_{CE}=-10V, I_C=-0.5A, f=1MHz$	3.0			MHz

\*Pulse Test:  $PW \leq 300ms$ , Duty Cycle  $\leq 2\%$

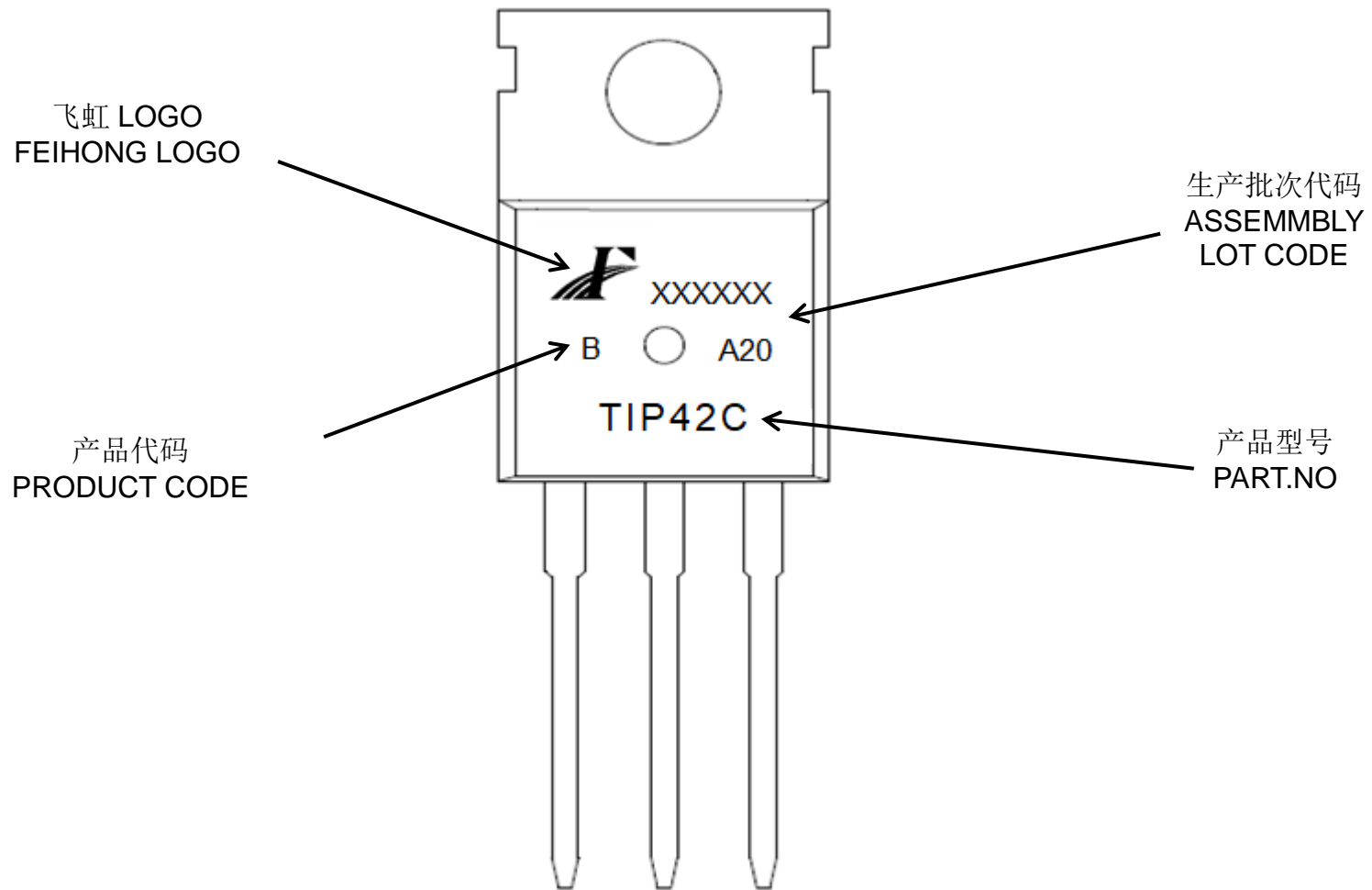
# 特性曲线

## Typical Performance Characteristics



---

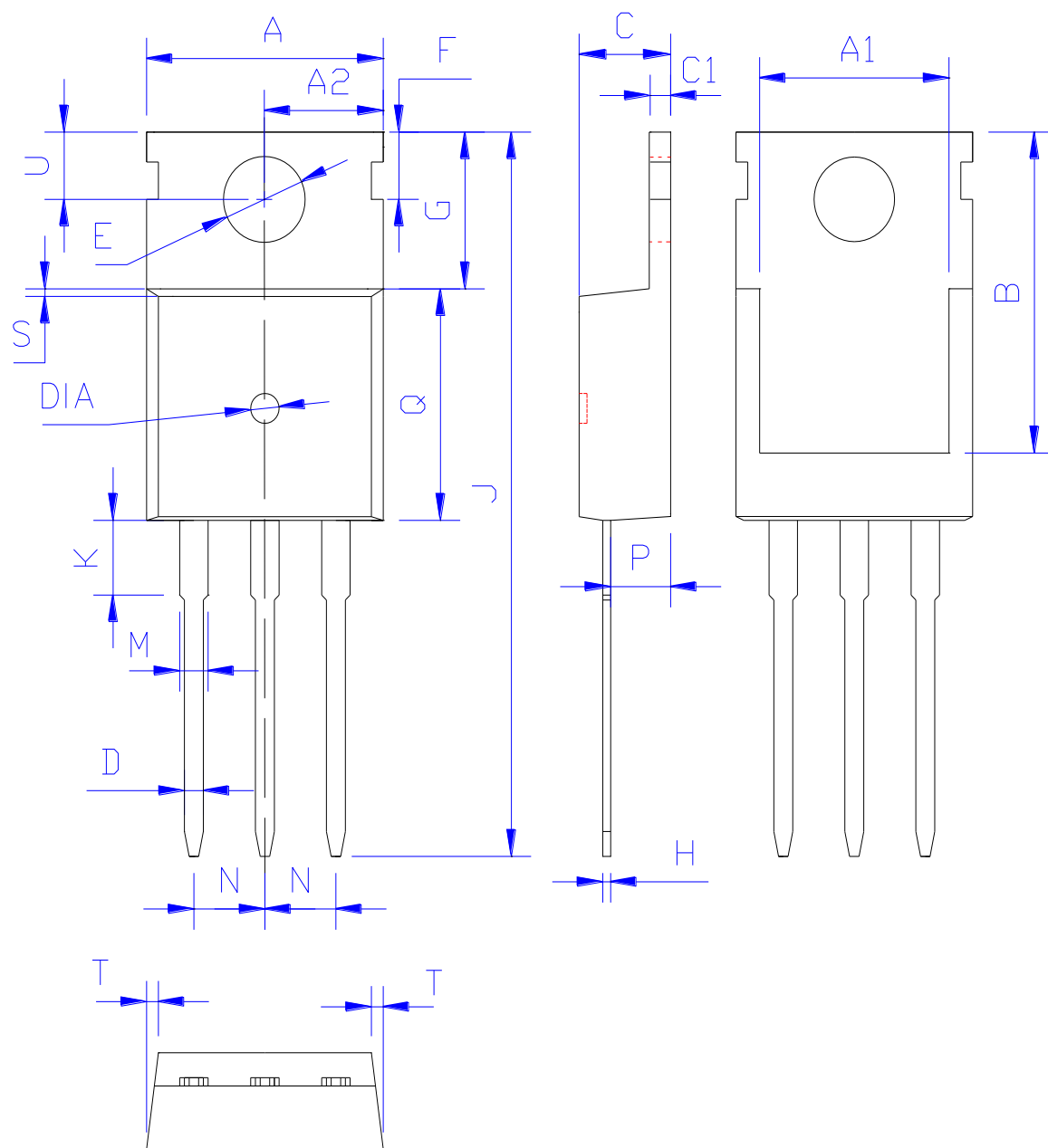
印记 Marking:



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

Unit: mm