



# 晶体管 TRANSISTOR BU406A

## 主要参数 MAIN CHARACTERISTICS

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

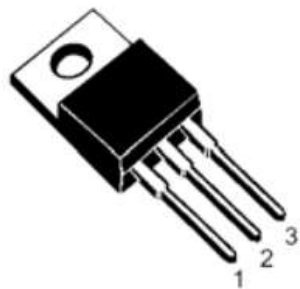
## 产品特性 FEATURES

硅外延	Epitaxial silicon
高开关速度	High switching speed
高电流容量	High current capability
RoHS产品	RoHS product

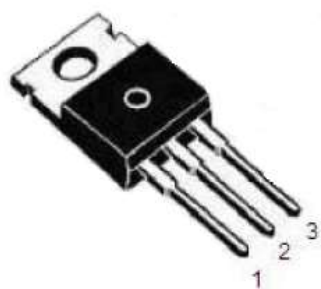
## 用途 APPLICATIONS

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

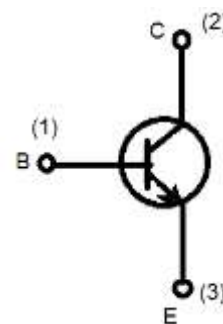
## 封装形式 Package



TO-220R



TO-220



## 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 (TO-92)	$P_c$	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	$^\circ\text{C/W}$

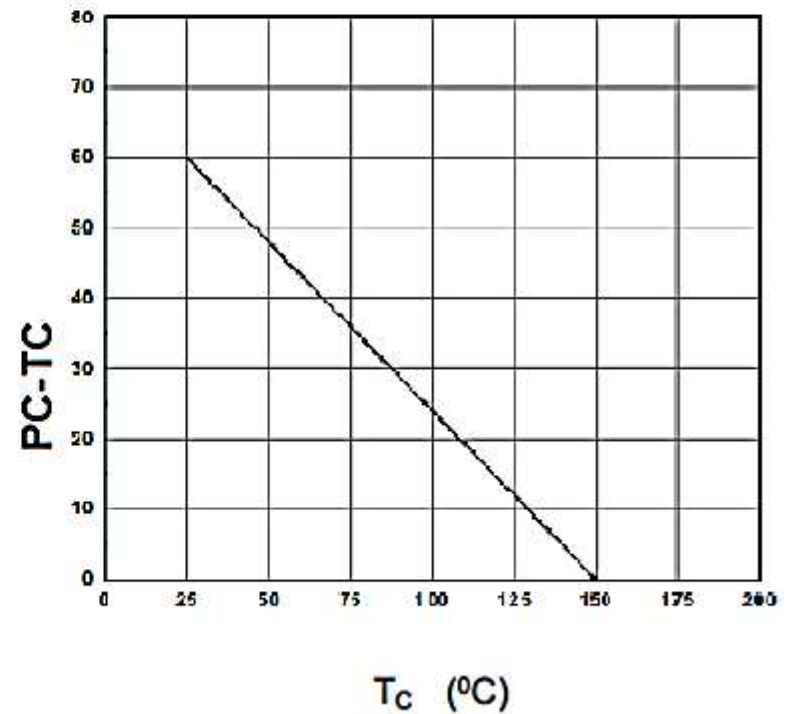
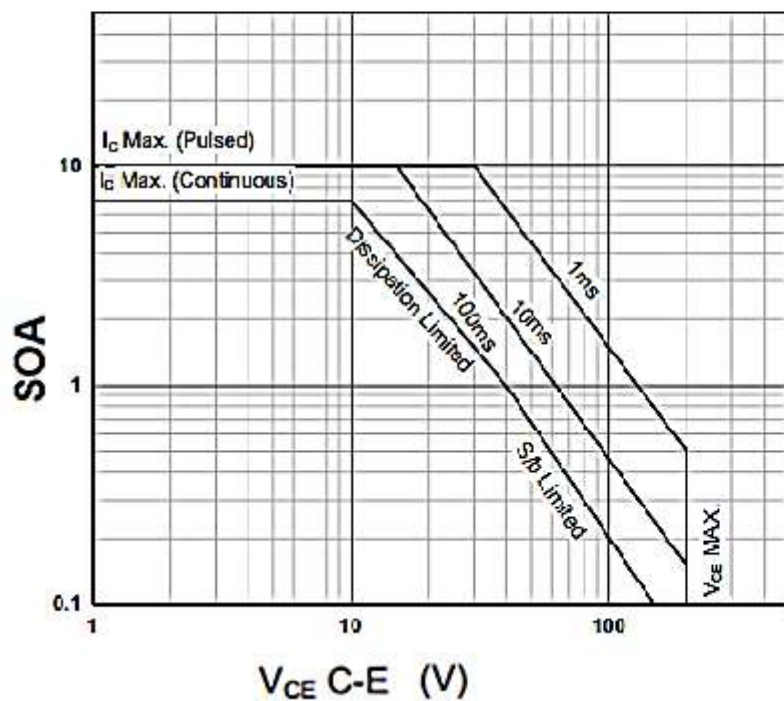
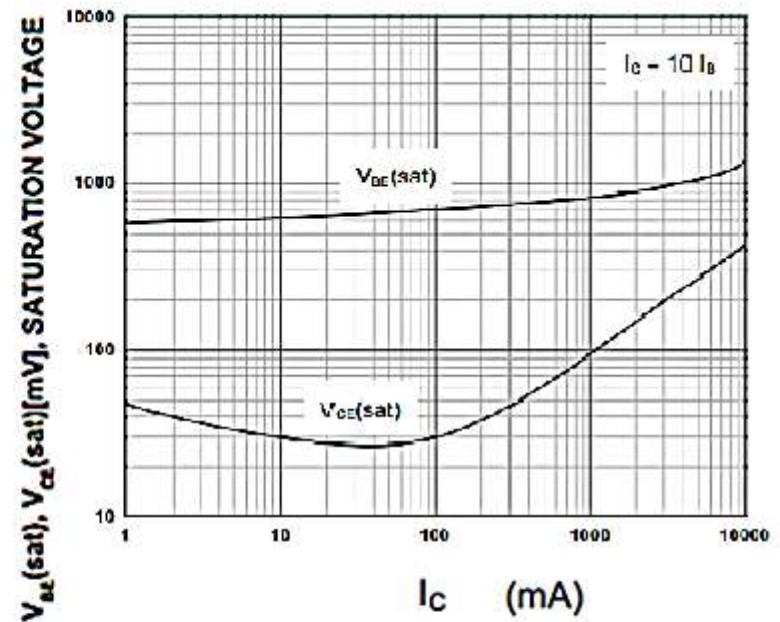
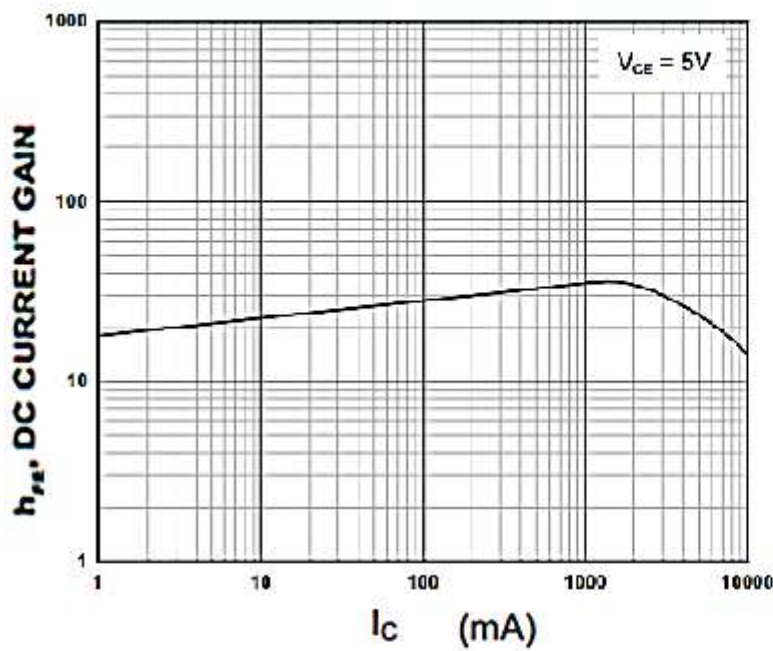
## 电特性 ELECTRICAL CHARACTERISTICS

项目 Parameter	测试条件 Tests conditions	最小值 (min)	典型值 (typ)	最大值 (max)	单位 Unit
$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	400	-	-	V
$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	200	-	-	V
$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	9	-	-	V
$I_{CBO}$	$V_{CB}=400V, I_E=0$	-	-	1	$\mu A$
$I_{CEO}$	$V_{CE}=200V, I_E=0$	-	-	10	$\mu A$
$I_{EBO}$	$V_{EB}=9V, I_C=0$	-	-	1	$\mu A$
$H_{fe}(1) *$	$V_{CE}=5V, I_C=2A$	60	-	85	
$H_{fe}(2) *$	$V_{CE}=5V, I_C=7A$	15	-	-	
$V_{CE(sat)} *$	$I_C=5A, I_B=0.5A$	-	-	0.6	V
$V_{BE(sat)} *$	$I_C=5A, I_B=0.5A$	-	-	1.2	V
$f_T$	$V_{CE}=10V, I_C=0.5A, f=1MHz$	10	-	-	MHz

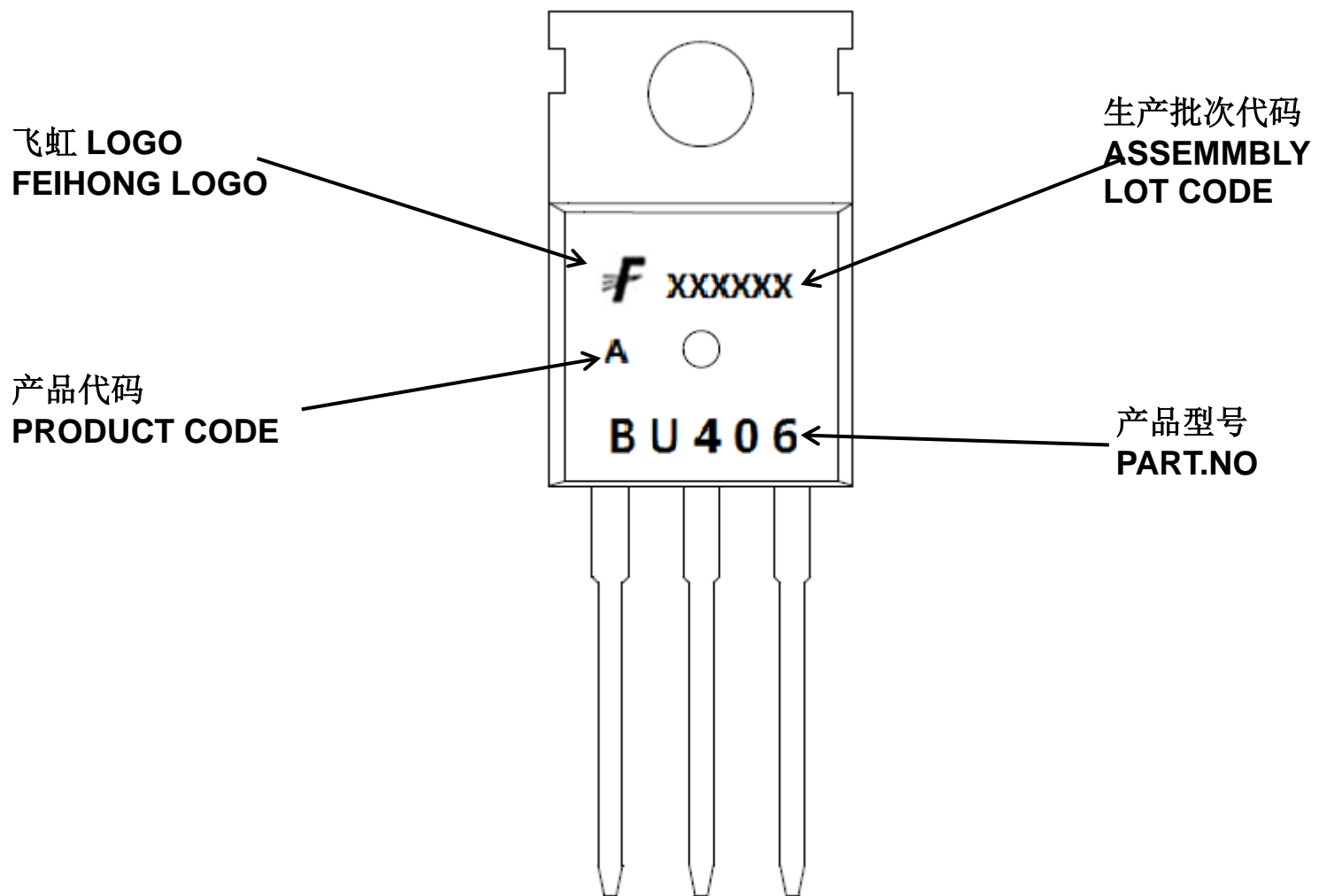
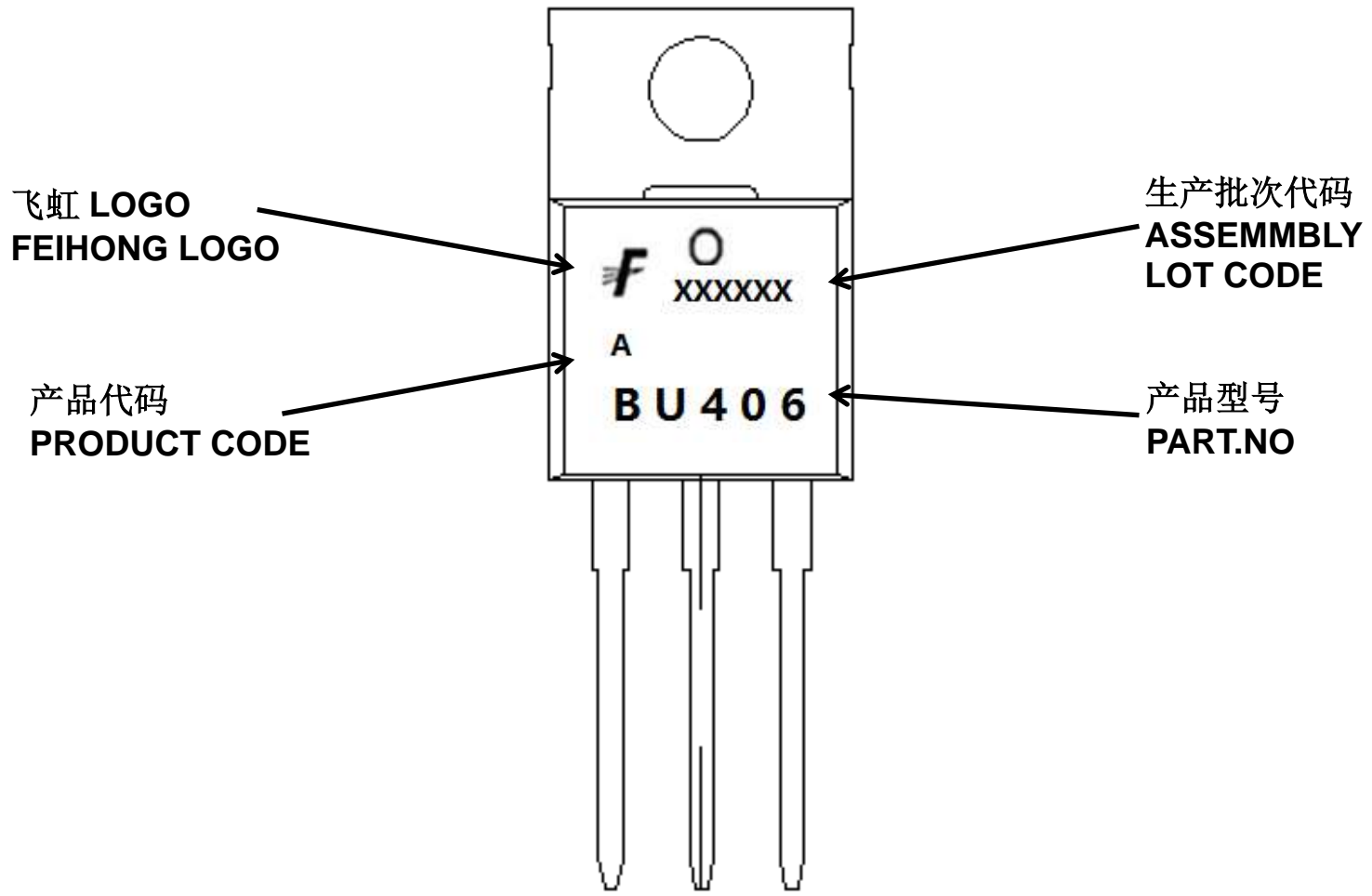
\*Pulse Test:  $PW \leq 300ms$ , Duty Cycle  $\leq 2\%$

## 特性曲线

### Typical Performance Characteristics

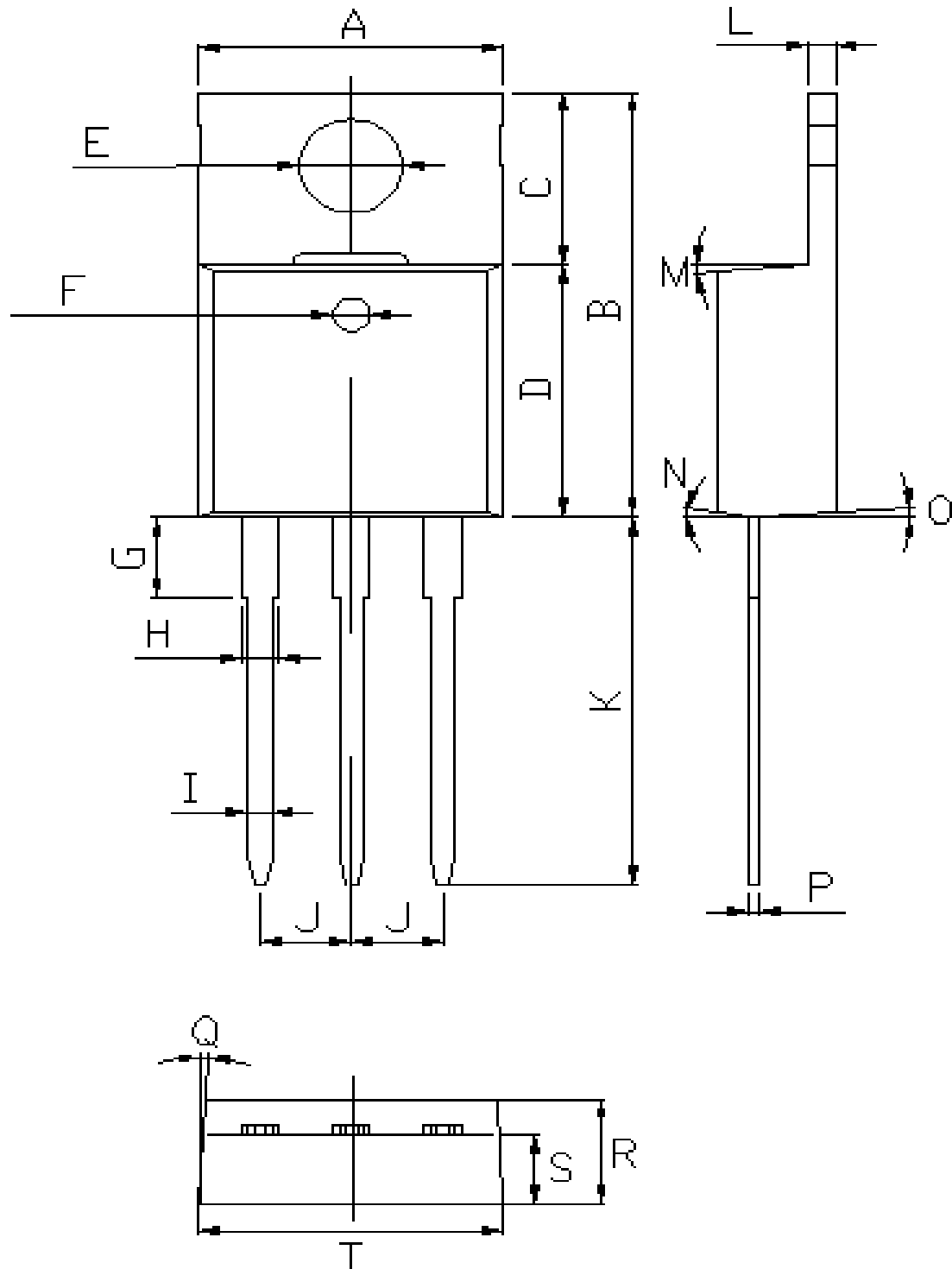


印记 Marking:



外形尺寸：  
Package Dimension:

TO-220R



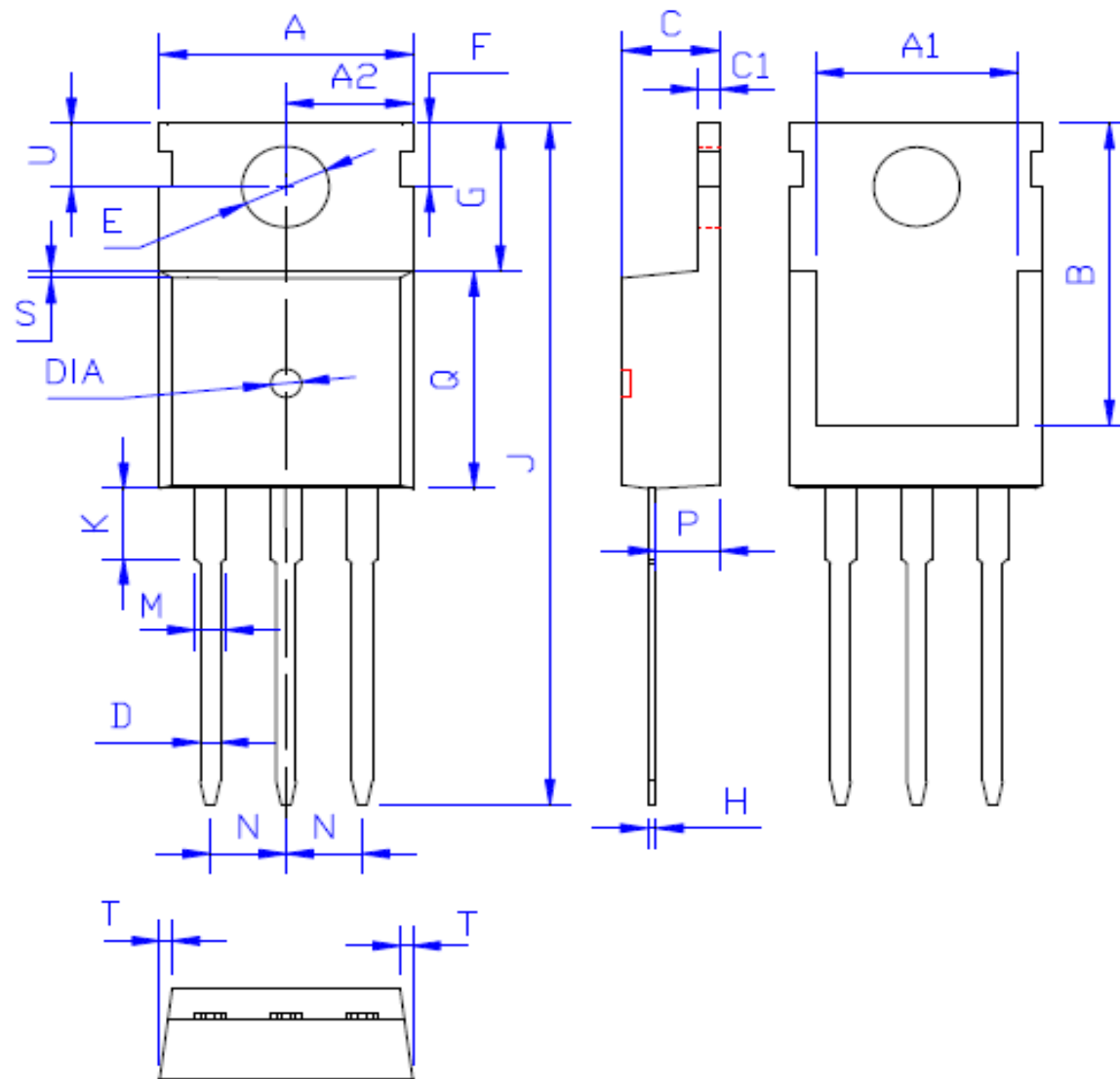
DIM	MILLIMETERS
A	10.16 $\pm$ 0.02
B	15.40 $\pm$ 0.10
C	6.40 $\pm$ 0.10
D	9.00 $\pm$ 0.10
E	3.84 $\pm$ 0.03
F	顶针孔 宽 1.50 $\pm$ 0.10 深 0.10 $\pm$ 0.10
G	3.45 $\pm$ 0.05
H	1.27 $\pm$ 0.02
I	0.81 $\pm$ 0.03
J	Typical 2.54
K	13.5 $\pm$ 0.20
L	1.27 $\pm$ 0.01
M	7°
N	6.5°
O	3°
P	0.38 $\pm$ 0.01
Q	3°
R	4.55 $\pm$ 0.10
S	2.60 $\pm$ 0.05
T	10.08 $\pm$ 0.10

(Units: mm)

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)