



BU406

主要参数 MAIN CHARACTERISTICS

I_C	7A
V_{CEO}	200V
$P_C(\text{IPAK})$	35W
$P_C(\text{TO-220/220C/263})$	60W
$P_C(\text{TO-3PB})$	120W

用途

- 高频开关电源
- 高频功率变换
- 一般功率放大电路

APPLICATIONS

- High frequency switching power supply
- High frequency power transform
- Commonly power amplifier circuit

产品特性

- 高耐压
- 高电流容量
- 高开关速度
- 高可靠性
- 环保 (RoHS) 产品

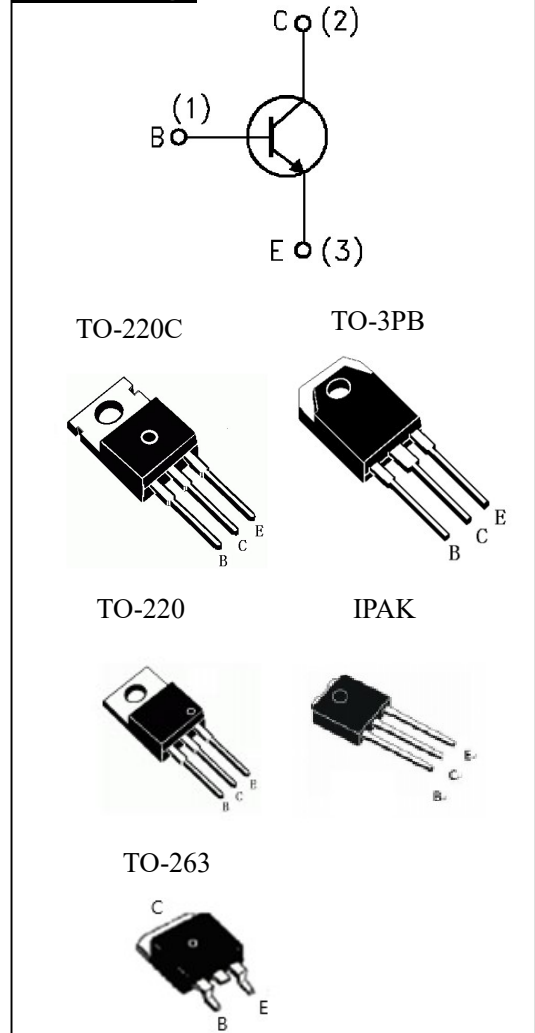
FEATURES

- High breakdown voltage
- High current capability
- High switching speed
- High reliability
- RoHS product

订货信息 ORDER MESSAGE

订货型号 Order codes				印 记 Marking	封 装 Package
有卤-条管	无卤-条管	有卤-袋装	无卤-袋装		
Halogen-Tube	Halogen-Free-Tube	Halogen-Bag	Halogen-Free-Bag		
BU406-C-B	BU406-C-BR	BU406-C-C	BU406-C-CR	BU406	TO-220C
BU406-CA-B	BU406-CA-BR	BU406-CA-C	BU406-CA-CR	BU406	TO-220
BU406-V-B	BU406-V-BR	BU406-V-C	BU406-V-CR	BU406	IPAK
BU406-GD-B	BU406-GD-BR	BU406-GD-C	BU406-GD-CR	BU406	TO-3PB
BU406-S-B	BU406-S-BR	BU406-S-C	BU406-S-CR	BU406	TO-263

封装 Package





绝对最大额定值 ABSOLUTE RATINGS (Tc=25°C)

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit	
集电极—发射极直流电压	Collector- Emitter Voltage ($V_{BE}=0$)	V_{CES}	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	V_{EBO}	9	V
最大集电极直流电流	Collector Current (DC)	I_C	7	A
最大集电极脉冲电流	Collector Current (pulse)	I_{CP}	10	A
最大基极直流电流	Base Current (DC)	I_B	4	A
最大基极脉冲电流	Base Current (pulse)	I_{BP}	8	A
最大集电极耗散功率	Total Dissipation (IPAK)	P_C	35	W
最大集电极耗散功率	Total Dissipation (TO-220/220C/263)	P_C	60	W
最大集电极耗散功率	Total Dissipation (TO-3PB)	P_C	120	W
最高结温	Junction Temperature	T_j	150	°C
贮存温度	Storage Temperature	T_{stg}	-55~+150	°C

注：pulse电流宽度为小于5ms的非重复单脉冲。 Pulse Test: Pulse Width = 5.0 ms, Duty Cycle < 10%.

电特性 ELECTRICAL CHARACTERISTIC

项 目 Parameter	测试条件 Tests conditions	最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单 位 Unit
$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	200	-	-	V
$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	400	-	-	V
$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	9	-	-	V
I_{CBO}	$V_{CB}=400V, I_E=0$	-	-	10	μA
I_{CEO}	$V_{CE}=200V, I_B=0$	-	-	50	μA
I_{EBO}	$V_{EB}=9V, I_C=0$	-	-	10	μA
Hfe(1)	$V_{CE}=5V, I_C=2A$	60	-	85	
Hfe(2)	$V_{CE}=5V, I_C=7A$	15	-	-	
$V_{CE(sat)}$	$I_C=5A, I_B=500mA$	-	-	1.5	V
$V_{BE(sat)}$	$I_C=5A, I_B=500mA$	-	-	1.5	V
fT	$V_{CE}=10V, I_C=0.5A$	10	-	-	MHz

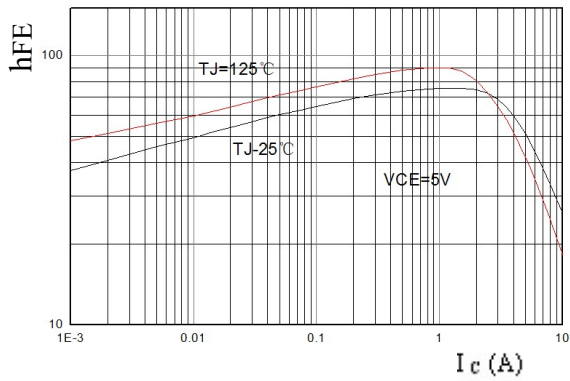
热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 TO-220/220C/263 Thermal Resistance Junction Case TO-220/220C/263	$R_{th(j-c)}$	-	2.08	°C/W
结到管壳的热阻 TO-3PB Thermal Resistance Junction Case TO-3PB	$R_{th(j-c)}$	-	1.04	°C/W
结到管壳的热阻 IPAK Thermal Resistance Junction Case IPAK	$R_{th(j-c)}$	-	3.57	°C/W

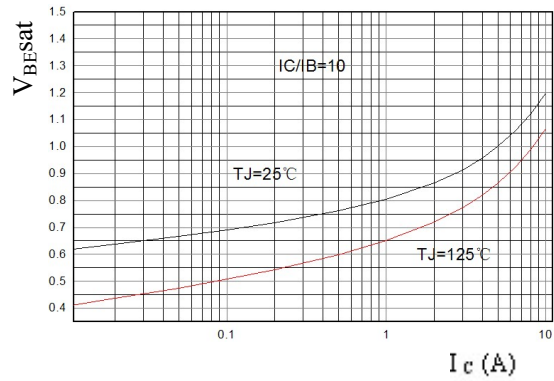


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

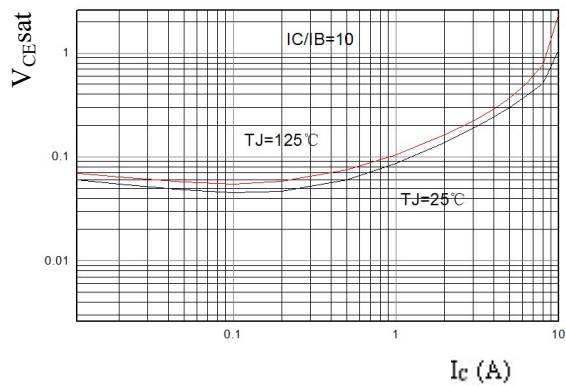
hFE - I_C



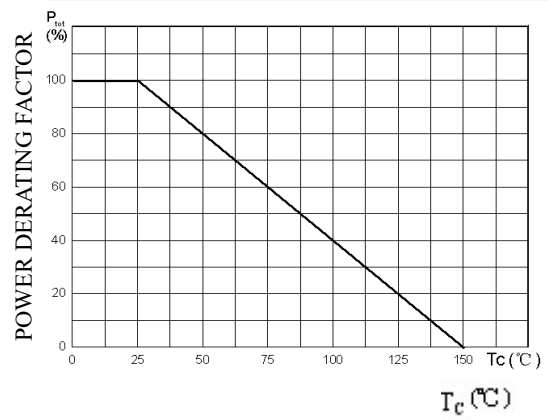
V_{BE} (sat) - I_C



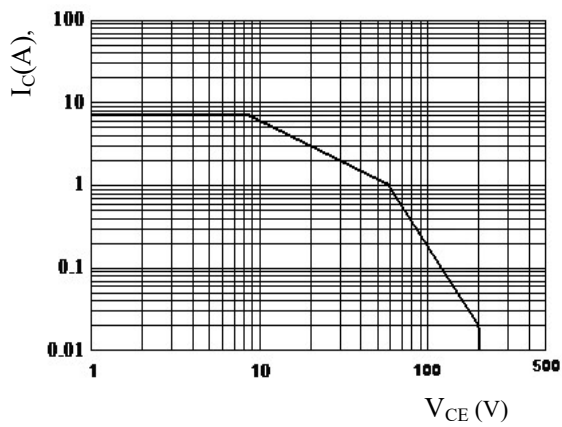
V_{CE(sat)} - I_C



P_C - T_C

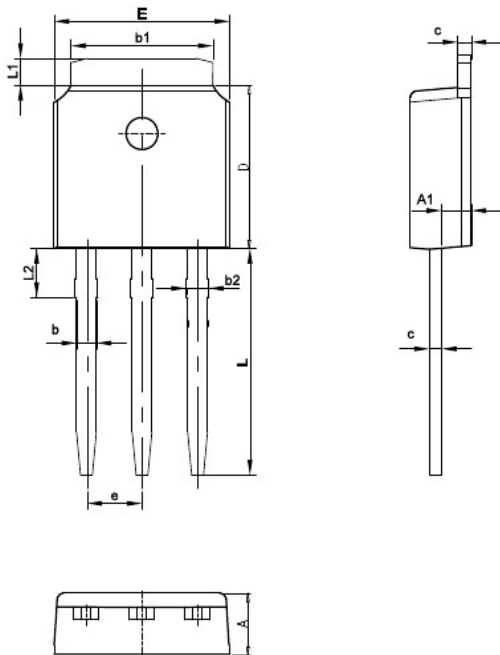


SOA





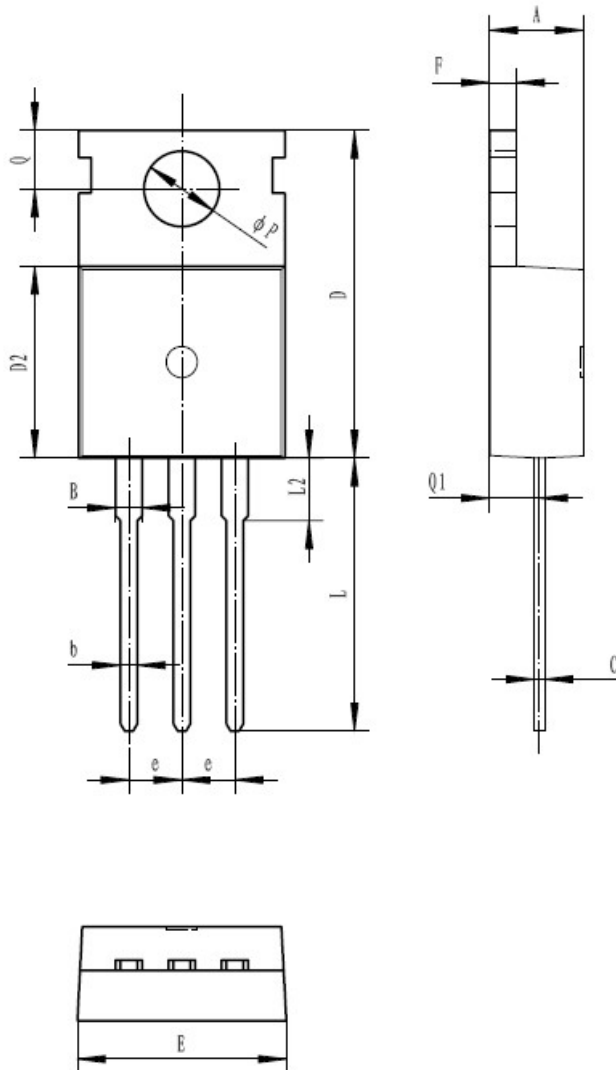
IPAK



SYMBOL	MM	
	MIN	MAX
A	2.10	2.50
A1	0.87	1.27
b	0.63	0.93
b1	5.13	5.53
b2	0.67	1.00
c	0.40	0.60
D	5.80	6.40
E	6.30	6.90
L	9.10	9.70
e	2.286BSC	
L1	0.82	1.22
L2	0.90	1.20



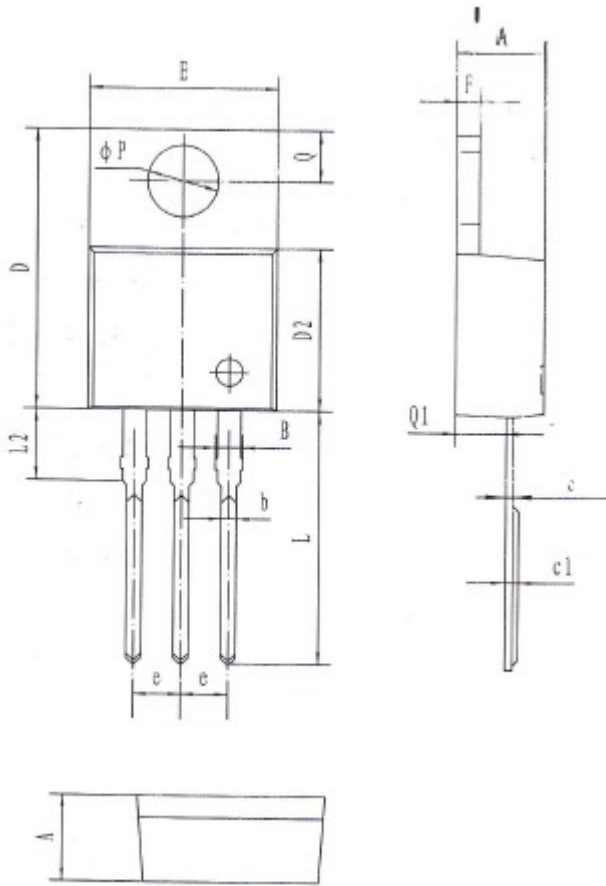
TO-220C



符号 symbol	MIN	MAX
A	4.30	4.70
B	1.22	1.40
b	0.70	0.95
c	0.40	0.65
D	15.20	16.20
D2	9.00	9.40
E	9.70	10.10
e	2.39	2.69
F	1.25	1.40
L	12.60	13.60
L2	2.80	3.20
Q	2.60	3.00
Q1	2.20	2.60
P	3.50	3.80



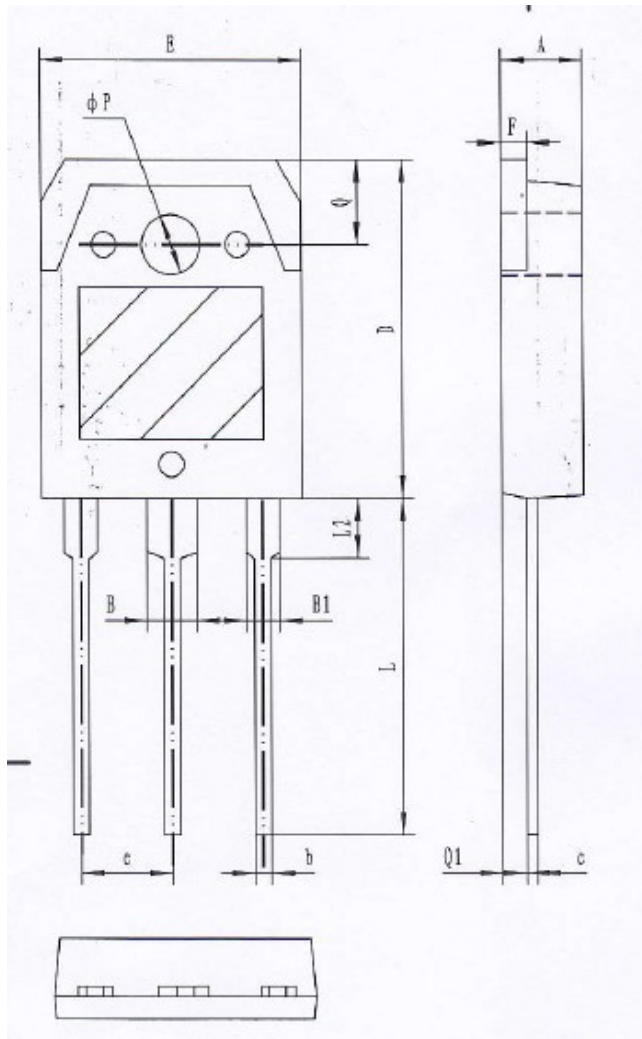
TO-220



符号 symbol	MIN	MAX
A	4.40	4.80
B	1.10	1.40
b	0.70	0.95
c	0.28	0.48
c1	0.32	0.52
D	14.45	16.00
D2	8.20	9.20
E	9.60	10.40
e	2.39	2.69
F	1.20	1.35
L	13.05	14.05
L2	3.70	3.90
Q	2.40	3.00
Q1	2.20	2.90
P	3.50	4.00



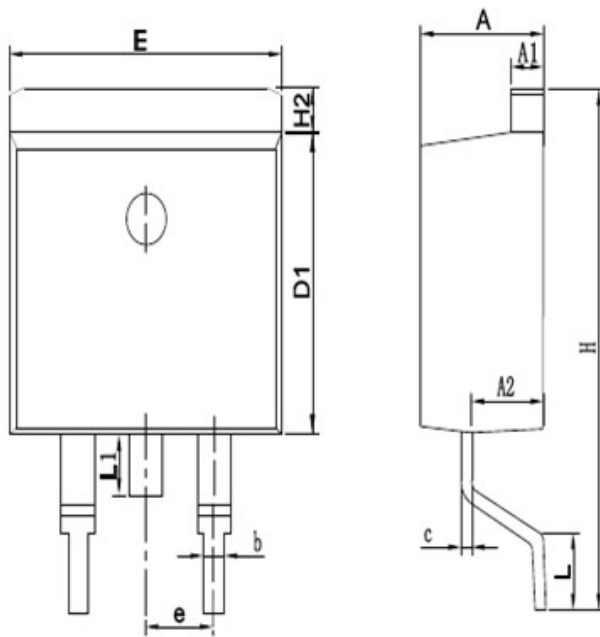
TO-3PB



符号 symbol	MIN	MAX
A	4.60	5.00
B	2.90	3.20
B1	1.90	2.20
b	0.90	1.10
c	0.50	0.70
D	19.40	20.40
E	15.40	15.80
e	5.45(TYP)	
F	1.40	1.60
L	19.50	20.50
L2	3.30	3.70
Q1	1.30	1.50
P	3.10	3.50



TO-263



符号	尺寸 (mm)
A	4.30-4.80
A1	1.12-1.42
A2	2.54-2.84
b	0.67-1.00
c	0.29-0.52
D1	8.40-9.00
E	9.80-10.46
e	2.54BSC
H	14.00-16.00
H2	1.12-1.45
L	1.50-3.10
L1	1.45-1.70



注意事项

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4. 本说明书如有版本变更不另外告知。

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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