



3DD4203D

主要参数 MAIN CHARACTERISTICS

I_C	2.0A
V_{CEO}	400V
$P_C(TO-92)$	1W
$P_C(TO-251)$	10W
$P_C(TO-126(S))$	20W
$P_C(TO-220)$	40W

用途

- 节能灯
- 电子镇流器
- 高频开关电源
- 高频功率变换
- 一般功率放大电路

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

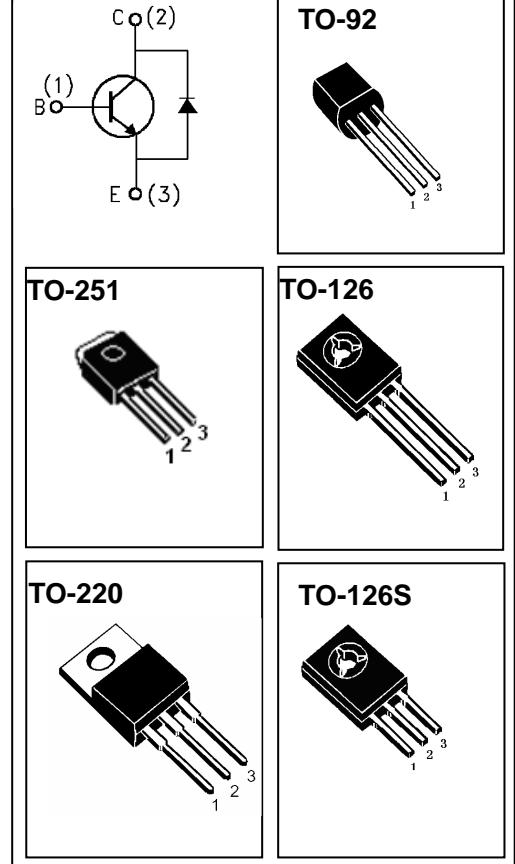
APPLICATIONS

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

FEATURES

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

封装 Package



订货信息 ORDER MESSAGE

订货型号 Order codes	印记 Marking	无卤素 Halogen Free	封装 Package	包装 Packaging
3DD4203D-O-T- B-A	D4203D	否 NO	TO-92	编带 Brede
3DD4203D-O-T- N-C	D4203D	否 NO	TO-92	袋装 Bag
3DD4203D-O- I- N-C	D4203D	否 NO	TO-251	袋装 Bag
3DD4203D-O- I- N-B	D4203D	否 NO	TO-251	条管 Tube
3DD4203D-O-M-N-C	D4203D	否 NO	TO-126	袋装 Bag
3DD4203D-O-M-N-B	D4203D	否 NO	TO-126	条管 Tube
3DD4203D-O-MS-N-C	D4203D	否 NO	TO-126S	袋装 Bag
3DD4203D-O-MS-N-B	D4203D	否 NO	TO-126S	条管 Tube
3DD4203D-O-Z-N-C	D4203D	否 NO	TO-220	袋装 Bag
3DD4203D-O-Z-N-B	D4203D	否 NO	TO-220	条管 Tube





绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)

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}	700	V
集电极—发射极直流电压	Collector- Emitter Voltage (I _B =0)	V _{CEO}	400	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	2.0	A
最大集电极脉冲电流	Collector Current (pulse)	I _{CP}	4.0	A
最大集电极耗散功率	Total Dissipation (TO-92)	P _C	1	W
最大集电极耗散功率	Total Dissipation (TO-251)	P _C	10	W
最大集电极耗散功率	Total Dissipation (TO-126(S))	P _C	20	W
最大集电极耗散功率	Total Dissipation (TO-220)	P _C	40	W
最高结温	Junction Temperature	T _J	150	℃
贮存温度	Storage Temperature	T _{stg}	-55~+150	℃

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	400	490	-	V
V(BR) _{CBO}	I _C =1mA, I _B =0	700	800	-	V
V(BR) _{EBO}	I _E =1mA, I _C =0	9	13	-	V
I _{CBO}	V _{CB} =680V, I _E =0	-	-	100	μA
I _{CEO}	V _{CE} =400V, I _B =0	-	-	50	μA
I _{EBO}	V _{EB} =7V, I _C =0	-	-	10	μA
hFE	V _{CE} =5V, I _C =5mA	6	16	40	-
	V _{CE} =10V, I _C =200mA	10	20	30	-
V _{CE(sat)}	I _C =0.5A, I _B =0.1A	-	0.18	0.8	V
V _{BE(sat)}	I _C =0.5A, I _B =0.1A	-	0.9	1.2	V
t _f	V _{CC} =24V I _C =2A, I _{B1} =-I _{B2} =0.4A	-	-	0.7	μS
t _s	V _{CC} =24V I _C =2A, I _{B1} =-I _{B2} =0.4A	-	-	4	μS
f _T	V _{CE} =10V, I _C =0.1A	4	-	-	MHz

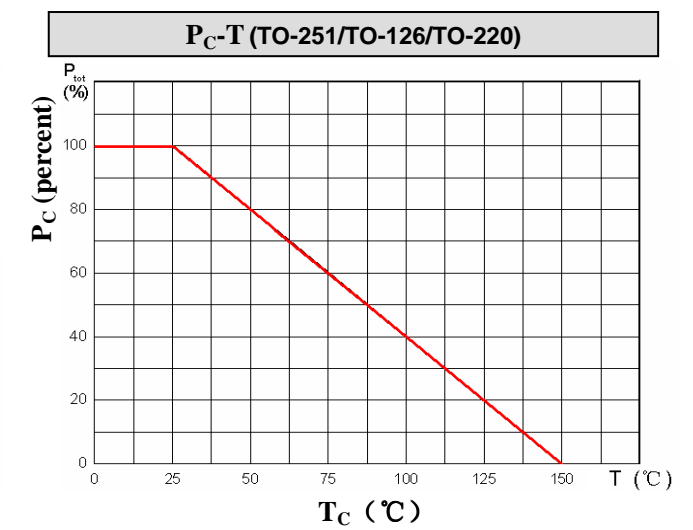
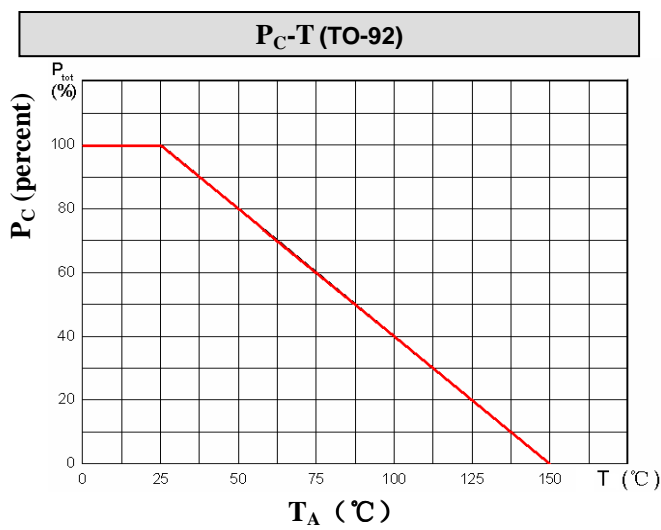
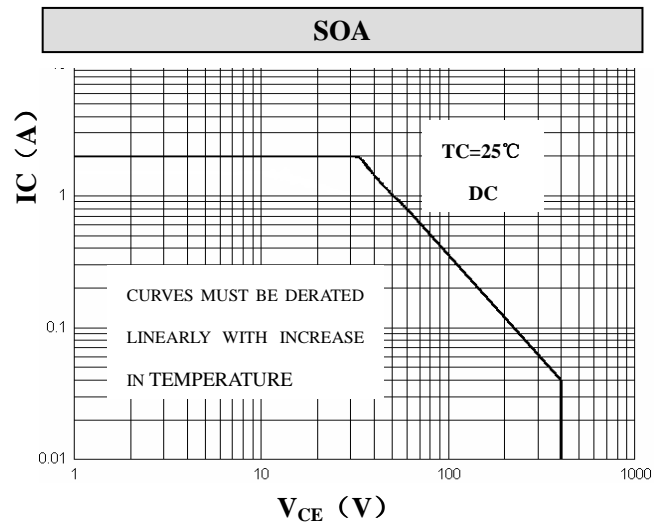
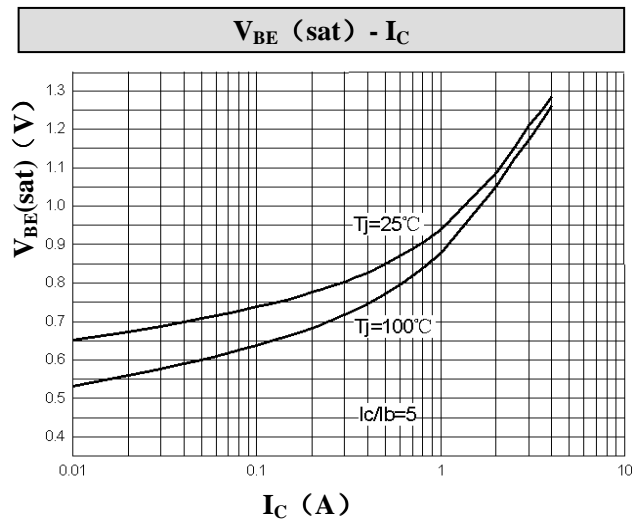
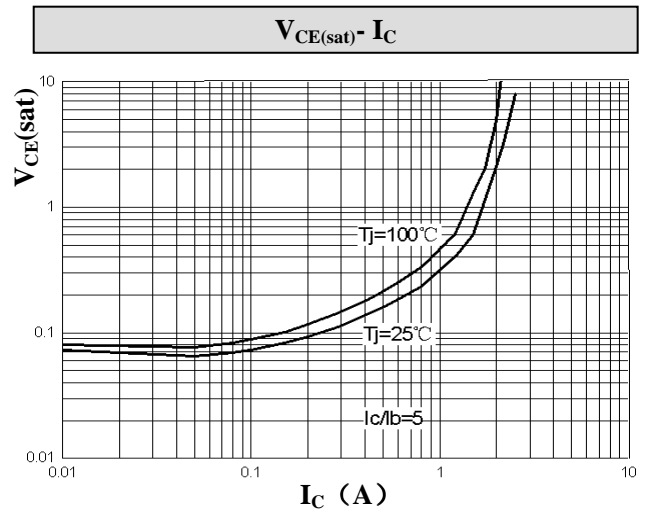
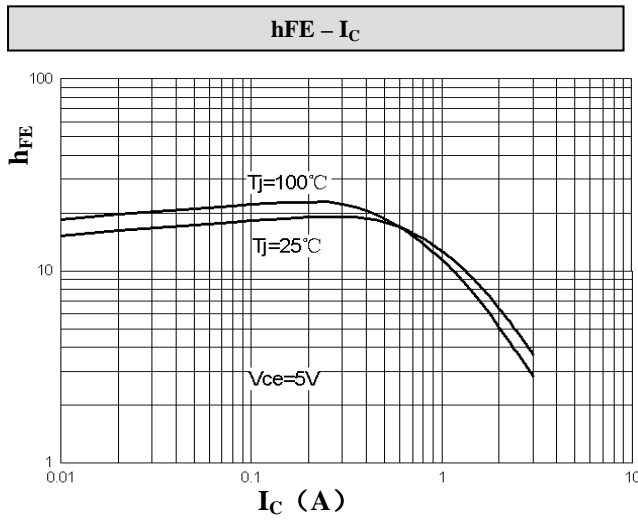
热特性 THERMAL CHARACTERISTIC

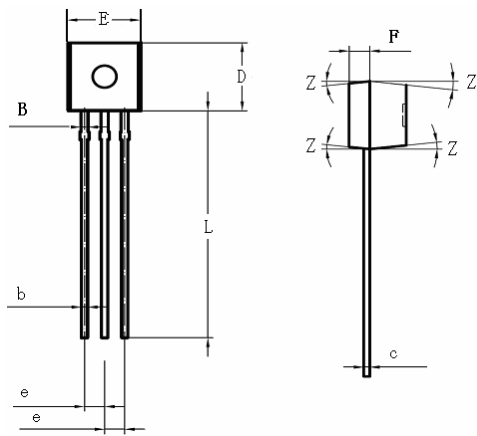
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到环境的热阻 TO-92 Thermal Resistance Junction Case TO-92	R _{th(j-a)}	-	125	℃/W
结到管壳的热阻 TO-251 Thermal Resistance Junction Case TO-251	R _{th(j-c)}	-	12.5	℃/W
结到管壳的热阻 TO-126(S) Thermal Resistance Junction Case TO-126(S)	R _{th(j-c)}	-	6.25	℃/W
结到管壳的热阻 TO-220 Thermal Resistance Junction Case TO-220	R _{th(j-c)}	-	3.125	℃/W



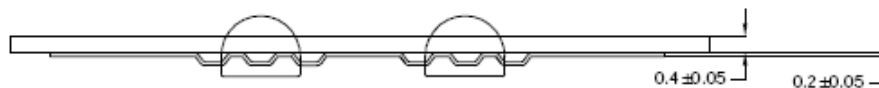
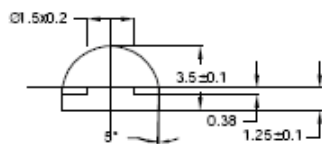
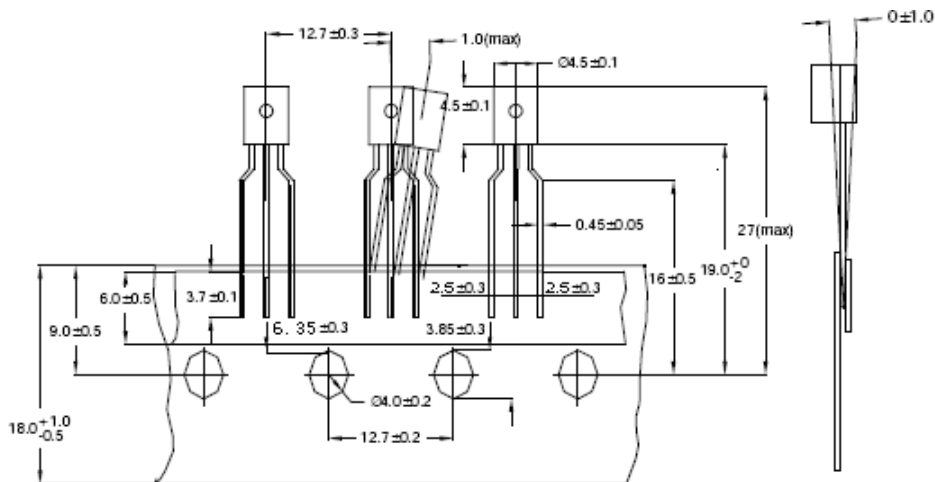
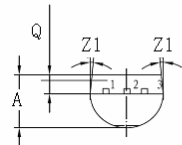


特征曲线 ELECTRICAL CHARACTERISTICS (curves)





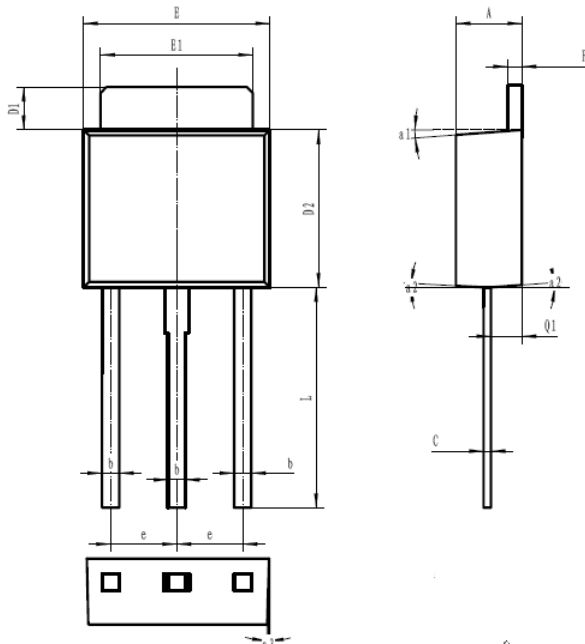
A	3.30-3.90
B	0.35-0.55
b	0.35-0.55
c	0.31-0.51
D	4.30-4.90
E	4.30-4.90
e	1.17-1.37
F	1.00-1.60
L	12.50-15.50
Q	1.00-1.60
Z	2°
Z1	5°





外形尺寸 PACKAGE MECHANICAL DATA
TO-251

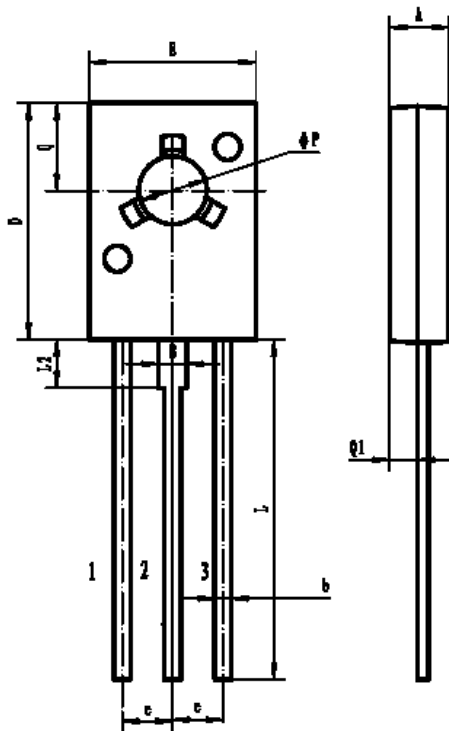
单位 Unit : mm



A	2.20-2.40
b	0.55-0.65
b1	0.70-0.90
C	0.45-0.55
D1	1.40-1.60
D2	5.40-5.60
E	6.40-6.60
E1	5.20-5.40
e	2.25-2.35
F	0.45-0.55
L	7.60-7.80
Q1	1.15-1.25
a1	4°-6°
a2	4°-6°
a3	4°-6°

外形尺寸 PACKAGE MECHANICAL DATA
TO-126

单位 Unit : mm



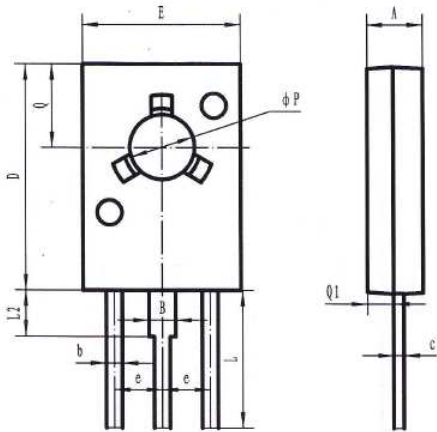
符号 symbol	MIN	MAX
A	2.50	2.90
B	1.22	1.28
C	0.30	0.70
D	10.50	11.10
E	7.10	8.10
Q	3.80	4.20
Q1	1.07	1.47
L	15.30	15.70
L2	2.10	2.30
b	0.60	0.90
e	2.19	2.39





外形尺寸 PACKAGE MECHANICAL DATA
TO-126S

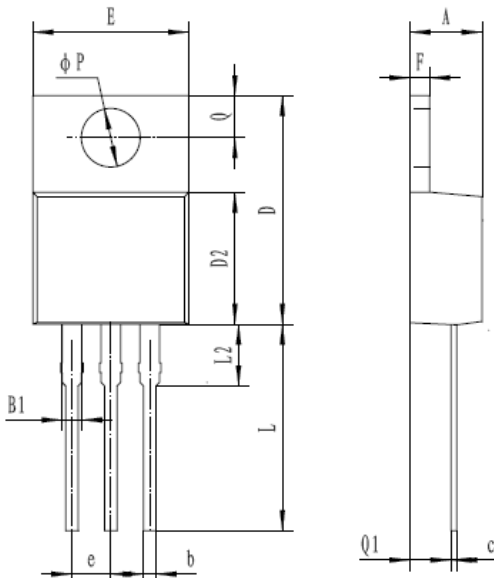
单位 Unit : mm



A	2.50-2.90
B	1.22-1.28
c	0.30-0.70
D	10.50-11.10
E	7.10-8.10
Q	3.80-4.20
Q1	1.07-1.47
L	7.80-8.20
L2	2.10-2.30
b	0.60-0.90
e	2.19-2.39

外形尺寸 PACKAGE MECHANICAL DATA
TO-220

单位 Unit : mm



符号	尺寸 (mm)
A	4.4-4.8
B1	1.1-1.4
b	0.7-0.95
c	0.3-0.55
D	14.45-16.0
D2	8.2-9.2
E	9.6-10.4
e	2.54 (typ)
F	1.2-1.35
L	13.05-14.05
L2	3.7-3.9
P	3.5-4.0
Q	2.4-3.0
Q1	2.2-2.9



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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
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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附录 (Appendix)：修订记录 (Revision History)

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes
2009-7-30	200905C	200906D	增加 TO-126S 封装
2009-9-3	200906D	200909E	更正放大测试条件
2009-10-29	200909E	200910F	电话号码
2010-3-2	200910F	201002G	增加 TO-92 封装

