



# 3DD4233 (I/U/M)

## 主要参数 MAIN CHARACTERISTICS

$I_C$	1.2A
$V_{CEO}$	400V
$P_C(TO-251/252)$	10W
$P_C(TO-126)$	20W

### 用途

- 节能灯
- 充电器
- 高频开关电源
- 高频功率变换
- 一般功率放大电路

### APPLICATIONS

- Electronic ballasts
- Battery charger
- High frequency switching power supply
- High frequency power transform
- Commonly power amplifier

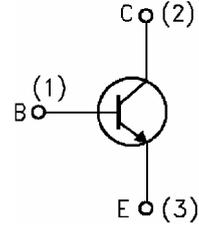
### 产品特性

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

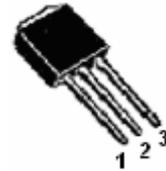
### FEATURES

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

## 封装 Package



TO-251  
(3DD4233I)



TO-252  
(3DD4233U)



TO-126  
(3DD4233M)



## 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
3DD4233I -O- I -N-B	D4233I	否 NO	TO-251	条管 Tube
3DD4233I -O- I -N-C	D4233I	否 NO	TO-251	袋装 Bag
3DD4233U -O- U -N-B	D4233U	否 NO	TO-252	条管 Tube
3DD4233U -O- U -N-C	D4233U	否 NO	TO-252	袋装 Bag
3DD4233M -O- M -N-B	D4233M	否 NO	TO-126	条管 Tube
3DD4233M -O- M -N-C	D4233M	否 NO	TO-126	袋装 Bag



**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—基极 Collector- Base Voltage	V <sub>CBO</sub>	700	V
集电极—发射极直流电压 Collector- Emitter Voltage	V <sub>CEO</sub>	400	V
发射极—基极直流电压 Emitter-Base Voltage	V <sub>EBO</sub>	9	V
最大集电极直流电流 Collector Current (DC)	I <sub>C</sub>	1.2	A
最大集电极脉冲电流 Collector Current (pulse)	I <sub>CP</sub>	2.4	A
最大集电极耗散功率 Total Dissipation (TO-251/252)	P <sub>C</sub>	10	W
最大集电极耗散功率 Total Dissipation (TO-126)	P <sub>C</sub>	20	W
最高结温 Junction Temperature	T <sub>j</sub>	150	℃
贮存温度 Storage Temperature	T <sub>stg</sub>	-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) <sub>CEO</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0	400	450	-	V
V(BR) <sub>CBO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	700	800	-	V
V(BR) <sub>EBO</sub>	I <sub>E</sub> =1mA, I <sub>C</sub> =0	9	14	-	V
I <sub>CBO</sub>	V <sub>CB</sub> =700V, I <sub>E</sub> =0	-	-	5	μA
I <sub>CEO</sub>	V <sub>CE</sub> =400V, I <sub>B</sub> =0	-	-	10	μA
I <sub>EBO</sub>	V <sub>EB</sub> =7V, I <sub>C</sub> =0	-	-	5	μA
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =100mA	10	22	40	-
	V <sub>CE</sub> =5V, I <sub>C</sub> =1.2A	3.0	4.0	-	-
V <sub>CE(sat)</sub>	I <sub>C</sub> =0.5A, I <sub>B</sub> =0.1A	-	0.3	0.8	V
V <sub>BE(sat)</sub>	I <sub>C</sub> =0.5A, I <sub>B</sub> =0.1A	-	0.9	1.2	V
t <sub>f</sub>	V <sub>CC</sub> =24V I <sub>C</sub> =0.25A, I <sub>B1</sub> =-I <sub>B2</sub> =0.05A	-	-	0.7	μS
t <sub>s</sub>	V <sub>CC</sub> =24V I <sub>C</sub> =0.25A, I <sub>B1</sub> =-I <sub>B2</sub> =0.05A	-	-	5	μS
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.1A	4	-	-	MHz

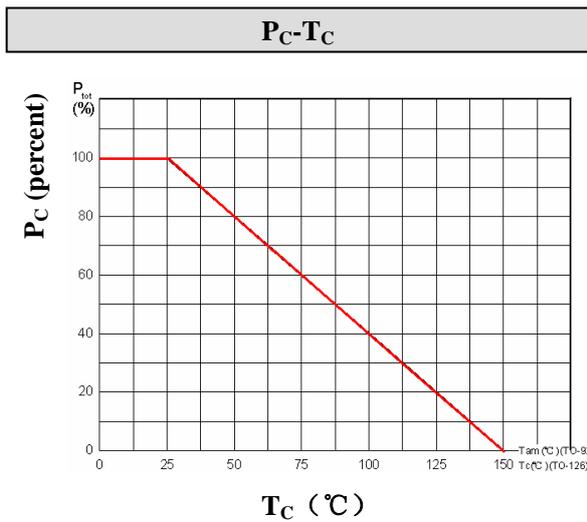
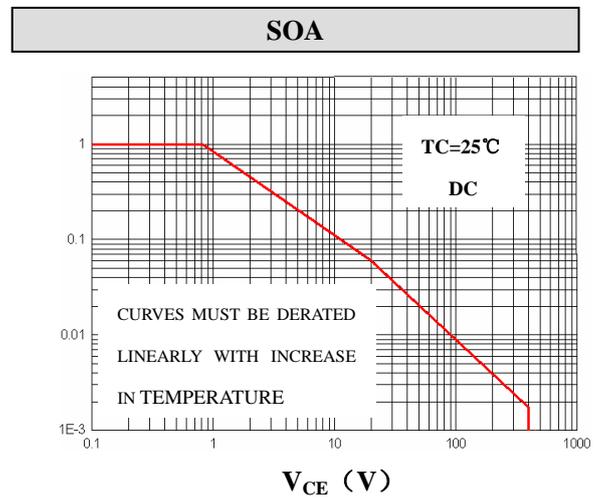
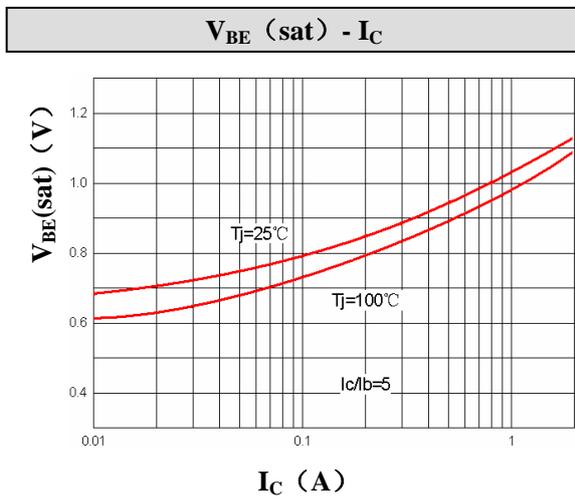
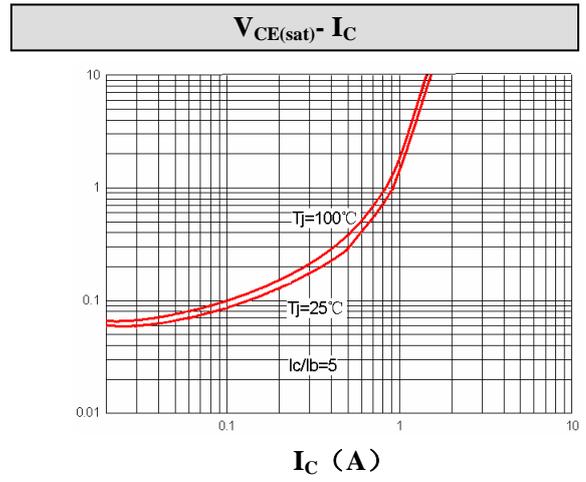
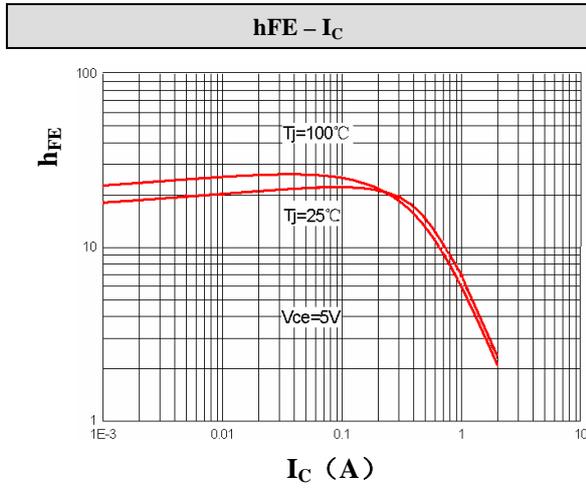
**热特性 THERMAL CHARACTERISTIC**

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-251/252 Thermal Resistance Junction Case TO-251/252	R <sub>th(j-c)</sub>	-	12.5	℃/W
结到管壳的热阻 TO-126 Thermal Resistance Junction Case TO-126	R <sub>th(j-c)</sub>	-	6.25	℃/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

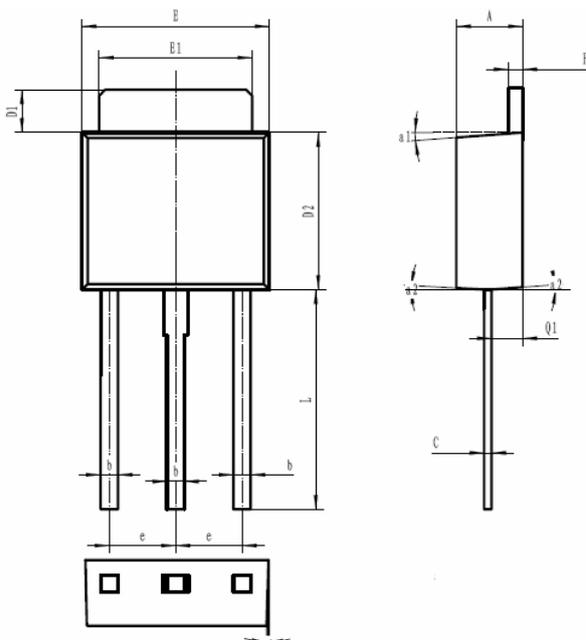




## 外形尺寸 PACKAGE MECHANICAL DATA

## TO-251

单位 Unit : mm

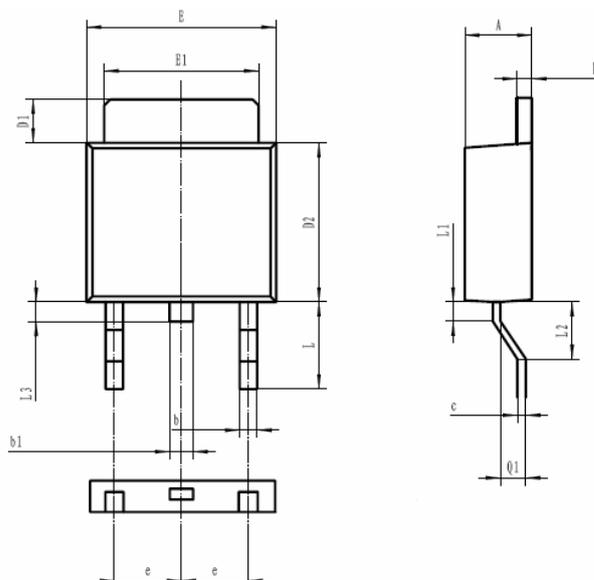


A	2.20-2.40
b	0.55-0.65
b1	0.70-0.90
C	0.45-0.55
D1	1.40-1.60
D2	5.40-5.60
E	6.40-6.60
E1	5.20-5.40
e	2.25-2.35
F	0.45-0.55
L	7.60-7.80
Q1	1.15-1.25
a1	4°-6°
a2	4°-6°
a3	4°-6°

## 外形尺寸 PACKAGE MECHANICAL DATA

## TO-252

单位 Unit : mm



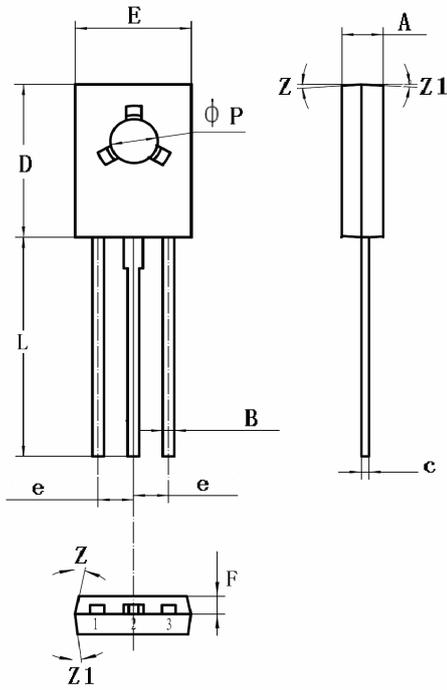
A	2.20-2.40
b	0.55-0.65
b1	0.70-0.90
C	0.45-0.55
D1	1.40-1.60
D2	5.40-5.60
E	6.40-6.60
E1	5.20-5.40
e	2.25-2.35
F	0.45-0.55
L	2.60-2.80
L1	0.90-1.10
L2	1.70-1.90
L3	0.70-0.90
Q1	1.15-1.25





外形尺寸 PACKAGE MECHANICAL DATA  
TO-126

单位 Unit : mm



A	2.50-2.90
B	0.60-0.90
c	0.30-0.70
D	10.50-11.10
E	7.10-8.10
e	2.19-2.39
L	14.0-17.0
F	1.07-1.47
Z	4°
Z1	3°
P	2.90-3.30



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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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**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
2009-5-11	200902B	200905C	版式
2009-10-29	200905C	200910D	电话号码

