



# 3DD4241(T/M/R)

## 主要参数 MAIN CHARACTERISTICS

$I_c$	1.2A
$V_{CEO}$	400V
$P_c(TO-92)$	1W
$P_c(DPAK)$	10W
$P_c(TO-126)$	20W

### 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

### APPLICATIONS

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

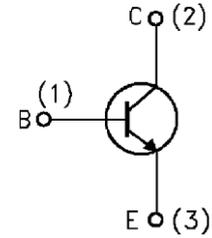
### 产品特性

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

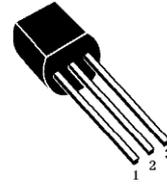
### FEATURES

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

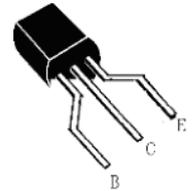
## 封装 Package



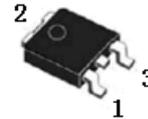
### TO-92



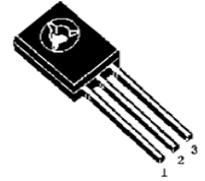
### TO-92-F1



### DPAK



### TO-126



## 订货信息 ORDER MESSAGE

订 货 型 号 Order codes				印 记 Marking	封 装 Package
有卤-编带	无卤-编带	有卤-袋装	无卤-袋装		
Halogen-Reel	Halogen-Free-Reel	Halogen-Bag	Halogen-Free-Bag		
3DD4241T-T-A	3DD4241T-T-AR	3DD4241T-T-C	3DD4241T-T-CR	D4241T	TO-92
3DD4241T-T1-A	3DD4241T-T1-AR	3DD4241T-T1-C	3DD4241T-T1-CR	D4241T	TO-92-F1
3DD4241R-R-A	3DD4241R-R-AR	3DD4241R-R-C	3DD4241R-R-CR	D4241R	DPAK
N/A	N/A	3DD4241M-M-C	3DD4241M-M-CR	D4241M	TO-126
有卤-条管	无卤-条管			印 记	封 装
Halogen-Tube	Halogen-Free-Tube			Marking	Package
3DD4241M-M-B	3DD4241M-M-BR			D4241M	TO-126





## 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 <sub>BE</sub> =0)	V <sub>CES</sub>	700	V
集电极—发射极直流电压	Collector- Emitter Voltage (I <sub>B</sub> =0)	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-92)	P <sub>C</sub>	1	W
最大集电极耗散功率	Total Dissipation ( DPAK )	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	°C
贮存温度	Storage Temperature	T <sub>stg</sub>	-55~+150	°C

## 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	440	-	V
V(BR) <sub>CBO</sub>	I <sub>C</sub> =1mA, I <sub>E</sub> =0	700	780	-	V
V(BR) <sub>EBO</sub>	I <sub>E</sub> =1mA, I <sub>C</sub> =0	9	15	-	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	19	22	25	-
	V <sub>CE</sub> =5V, I <sub>C</sub> =1.0A	4.0	7.5	-	-
V <sub>CE(sat)</sub>	I <sub>C</sub> =0.5A, I <sub>B</sub> =100mA	-	0.3	0.8	V
V <sub>BE(sat)</sub>	I <sub>C</sub> =0.5A, I <sub>B</sub> =100mA	-	1.0	1.2	V
t <sub>f</sub>	V <sub>CC</sub> =24V I <sub>C</sub> =0.1A, I <sub>B1</sub> =-I <sub>B2</sub> =0.02A	-	-	0.7	μS
t <sub>s</sub>		-	-	5	μS
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.1A	4	-	-	MHz

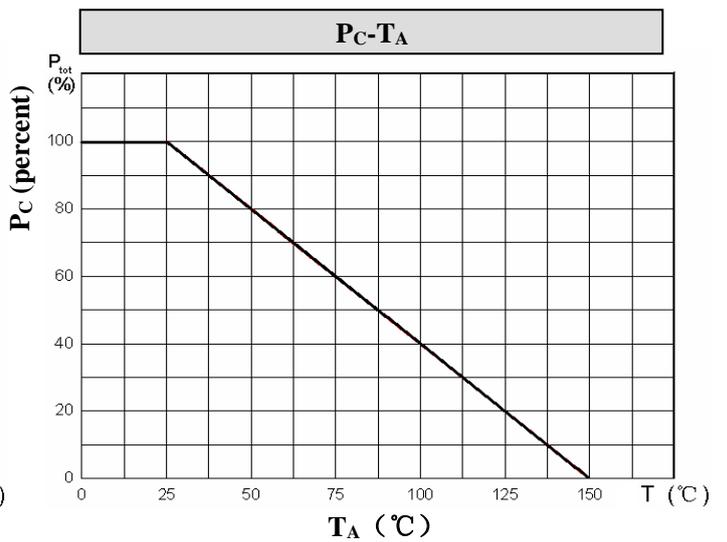
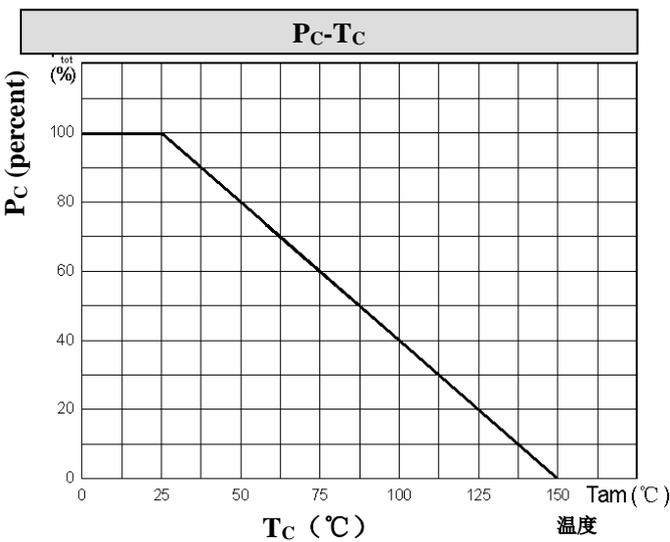
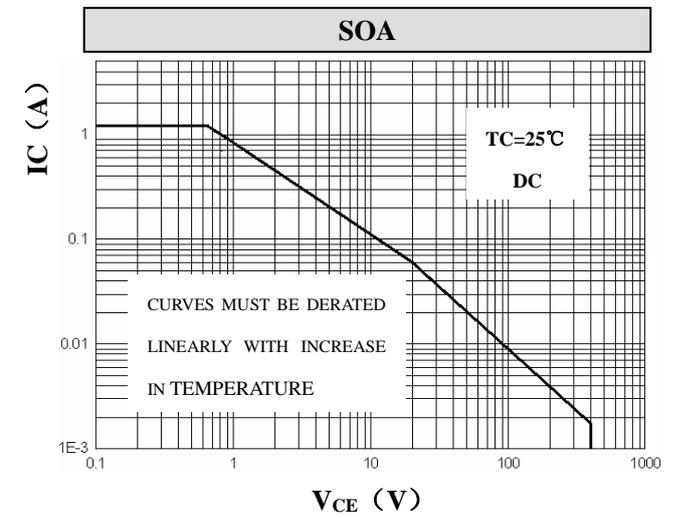
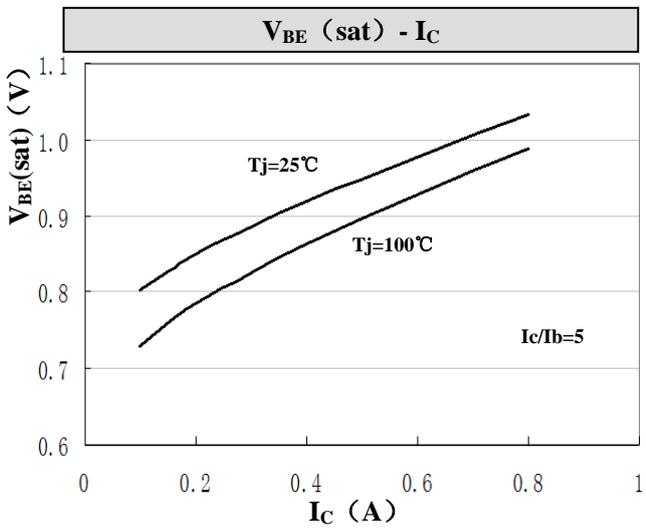
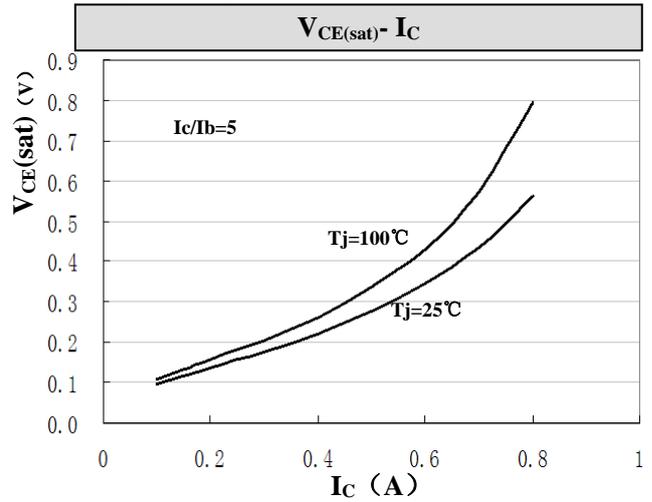
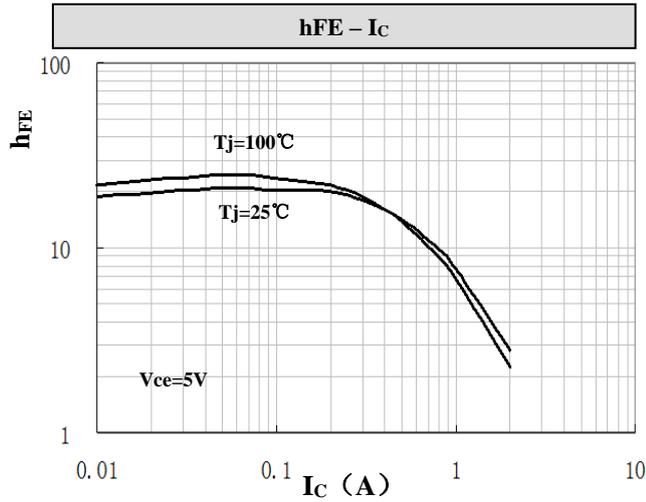
## 热特性 THERMAL CHARACTERISTIC

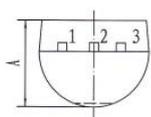
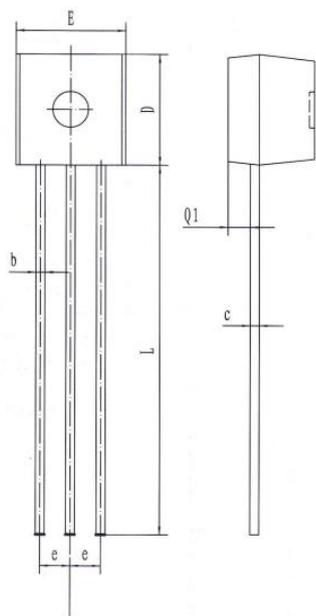
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到环境的热阻 TO-92 Thermal Resistance Junction Ambient TO-92	R <sub>th(j-a)</sub>	-	125	°C/W
结到管壳的热阻 DPAK Thermal Resistance Junction Case DPAK	R <sub>th(j-c)</sub>	-	12.5	°C/W
结到管壳的热阻 TO-126 Thermal Resistance Junction Case TO-126	R <sub>th(j-c)</sub>	-	6.25	°C/W



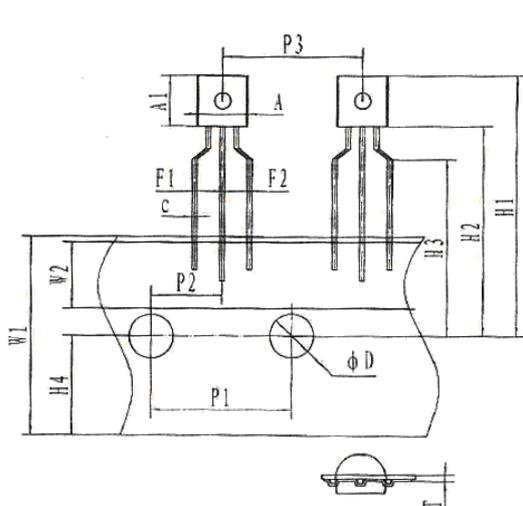


特征曲线 ELECTRICAL CHARACTERISTICS (curves)





符号 Symbol	尺寸 (mm) Size (mm)
A	3.30-3.90
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
L	12.50-15.50
Q1	0.85-1.00

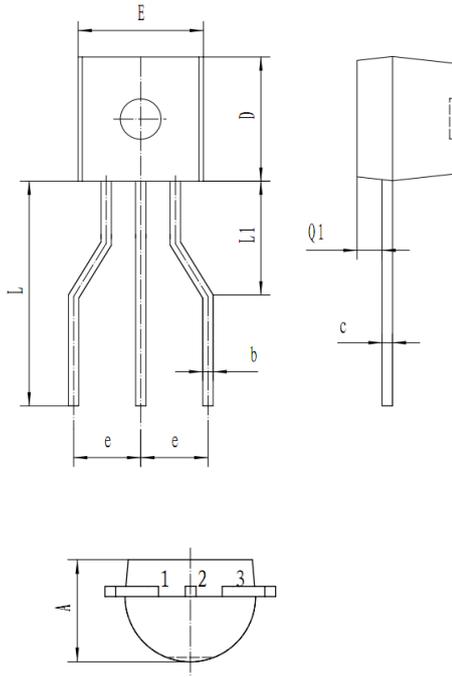


符号 Symbol	尺寸 (mm) Size (mm)
A	4.30-4.90
A1	4.30-4.90
A2	3.30-3.90
c	TYP 0.45
F1/F2	2.20-2.80
W1	17.5-18.5
W2	5.50-6.50
H1	22.0-27.0
H2	18.0-20.0
H3	15.0-17.0
H4	8.50-9.50
P1	12.5-12.9
P2	6.00-6.70
P3	12.5-12.9
T	0.40-0.45
φ D	3.80-4.20
ΔH	0.00-1.00





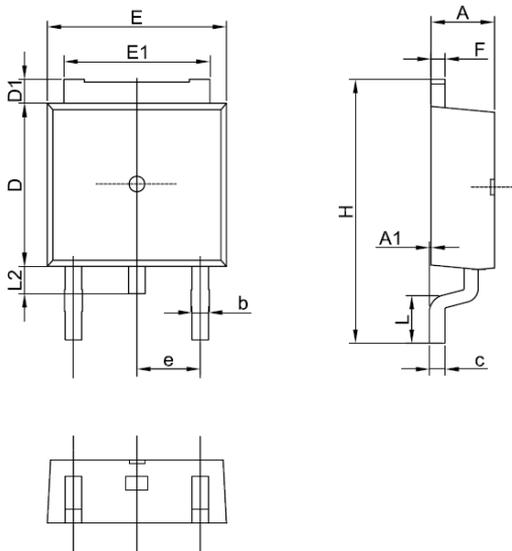
外形尺寸 PACKAGE MECHANICAL DATA  
TO-92-F1



符号 Symbol	尺寸 (mm) Size (mm)
<b>A</b>	3.30-3.90
<b>b</b>	0.35-0.55
<b>c</b>	0.31-0.51
<b>D</b>	4.30-4.90
<b>E</b>	4.30-4.90
<b>e</b>	2.00-3.10
<b>L</b>	5.90-7.10
<b>L1</b>	2.70-3.30
<b>Q1</b>	0.85-0.99

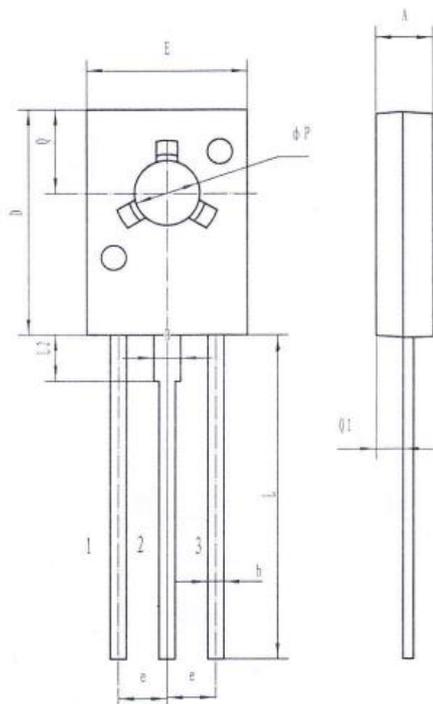
外形尺寸 PACKAGE MECHANICAL DATA  
DPAK

单位 Unit : mm



符号 Symbol	尺寸 (mm) Size (mm)
<b>A</b>	2.2-2.4
<b>A1</b>	0.0-0.2
<b>b</b>	0.7-0.9
<b>c</b>	0.45-0.55
<b>D</b>	6.0-6.3
<b>D1</b>	0.8-1.2
<b>E</b>	6.5-6.8
<b>E1</b>	5.2-5.5
<b>e</b>	2.28TYP
<b>F</b>	0.45-0.55
<b>H</b>	9.65-10.45
<b>L</b>	1.0-1.3
<b>L2</b>	0.7-1.3





符号 Symbol	尺寸 (mm) Size (mm)
A	2.50-2.90
B	1.22-1.47
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	15.3-15.7
L2	2.10-2.30
Q	3.80-4.20
Q1	1.07-1.47
P	3.00-3.20





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