



3DD4242D

主要参数 MAIN CHARACTERISTICS

I_C	1.5A
V_{CEO}	400V
P_C (TO-92/TO-92-F1/SOT-89)	1W
P_C (DPAK/IPAK)	10W
P_C (TO-126(S))	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

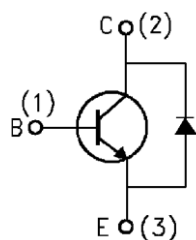
产品特性

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

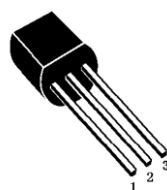
FEATURES

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

封装 Package



TO-92



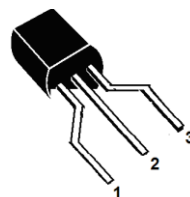
TO-126S



IPAK



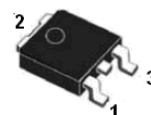
TO-92-F1



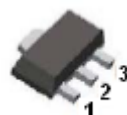
TO-126



DPAK



SOT-89
(3DD4242DO)





订货信息 ORDER MESSAGE

订货型号 Order codes				印 记 Marking	封 装 Package
有卤-编带 Halogen-Reel	无卤-编带 Halogen-Free-Reel	有卤-袋装 Halogen-Bag	无卤-袋装 Halogen-Free-Bag		
3DD4242D-NB-A	3DD4242D-NB-AR	3DD4242D-NB-C	3DD4242D-NB-CR	4242D	SOT-89
3DD4242D-T-A	3DD4242D-T-AR	3DD4242D-T-C	3DD4242D-T-CR	4242D	TO-92
3DD4242D-T1-A	3DD4242D-T1-AR	3DD4242D-T1-C	3DD4242D-T1-CR	4242D	TO-92-F1
3DD4242D-R-A	3DD4242D-R-AR	3DD4242D-R-C	3DD4242D-R-CR	4242D	DPAK
N/A	N/A	3DD4242D-V-C	3DD4242D-V-CR	4242D	IPAK
N/A	N/A	3DD4242D-M-C	3DD4242D-M-CR	4242D	TO-126
N/A	N/A	3DD4242D-M1-C	3DD4242D-M1-CR	4242D	TO-126S
有卤-条管 Halogen-Tube	无卤-条管 Halogen-Free-Tube			印 记 Marking	封 装 Package
3DD4242D-R-B	3DD4242D-R-BR				
3DD4242D-V-B	3DD4242D-V-BR			4242D	IPAK
3DD4242D-M-B	3DD4242D-M-BR			4242D	TO-126
3DD4242D-M1-B	3DD4242D-M1-BR			4242D	TO-126S

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}	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	1.5	A
最大集电极脉冲电流 Collector Current (pulse)	I _{CP}	3.0	A
最大集电极耗散功率 Total Dissipation (TO-92/SOT-89)	P _C	1	W
最大集电极耗散功率 Total Dissipation (DPAK/IPAK)	P _C	10	W
最大集电极耗散功率 Total Dissipation (TO-126(S))	P _C	20	W
最高结温 Junction Temperature	T _j	150	°C
贮存温度 Storage Temperature	T _{stg}	-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
$V(BR)_{CEO}$	$I_C=10mA, I_B=0$	400	470	-	V
$V(BR)_{CBO}$	$I_C=1mA, I_E=0$	700	800	-	V
$V(BR)_{EBO}$	$I_E=1mA, I_C=0$	9	16	-	V
I_{CBO}	$V_{CB}=700V, I_E=0$	-	-	5	μA
I_{CEO}	$V_{CE}=400V, I_B=0$	-	-	10	μA
I_{EBO}	$V_{EB}=7V, I_C=0$	-	-	5	μA
hFE	$V_{CE}=10V, I_C=100mA$	18	22	26	-
	$V_{CE}=5V, I_C=1.5A$	3.0	7.0	-	-
$V_{CE(sat)}$	$I_C=0.5A, I_B=100mA$	-	0.2	0.8	V
$V_{BE(sat)}$	$I_C=0.5A, I_B=100mA$	-	0.9	1.2	V
ts	$I_C=0.25A$	1.0		4.0	μS
ft	$V_{CE}=10V, I_C=0.1A$	4	-	-	MHz

热特性 THERMAL CHARACTERISTIC

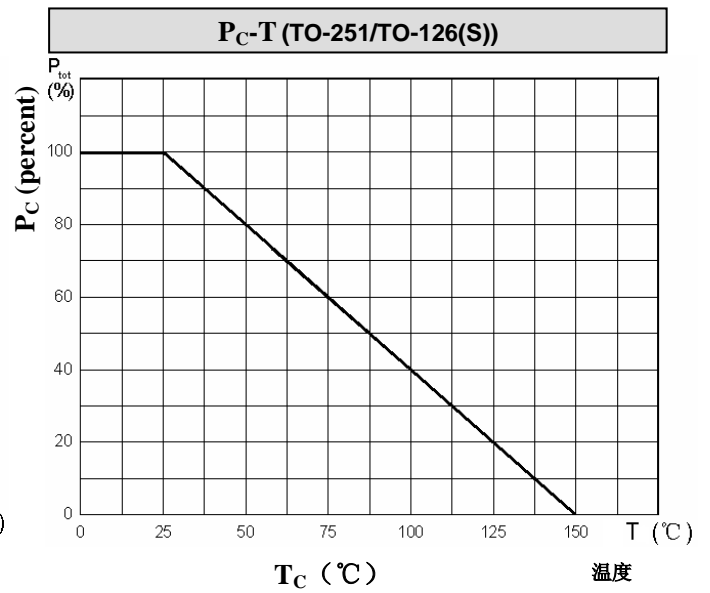
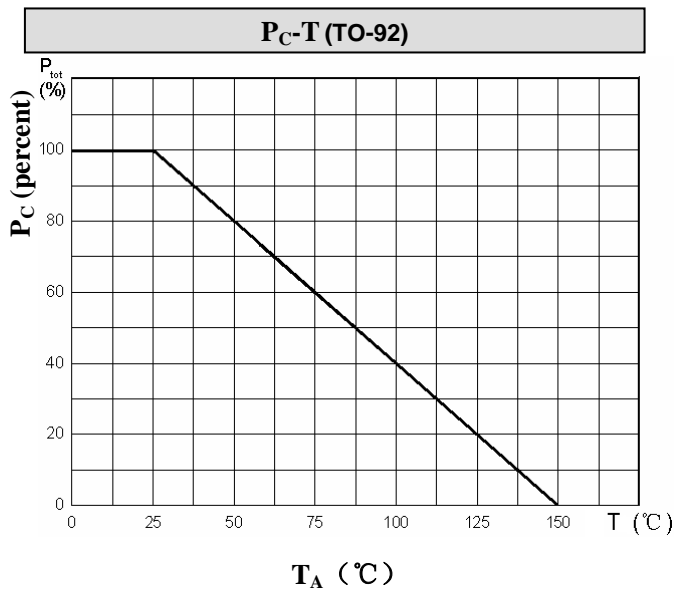
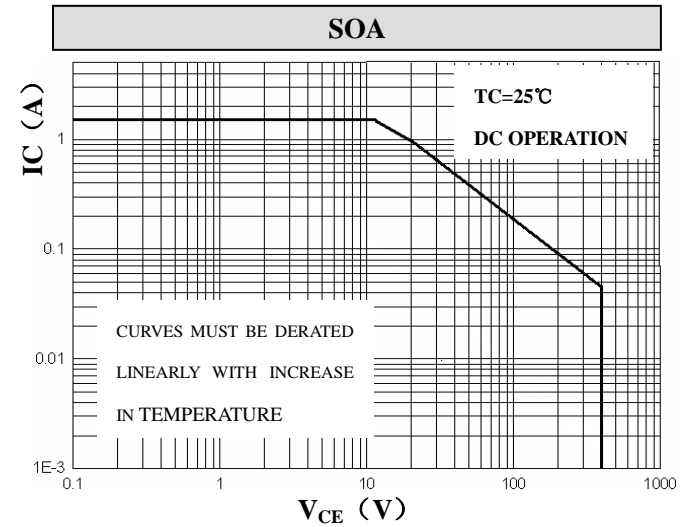
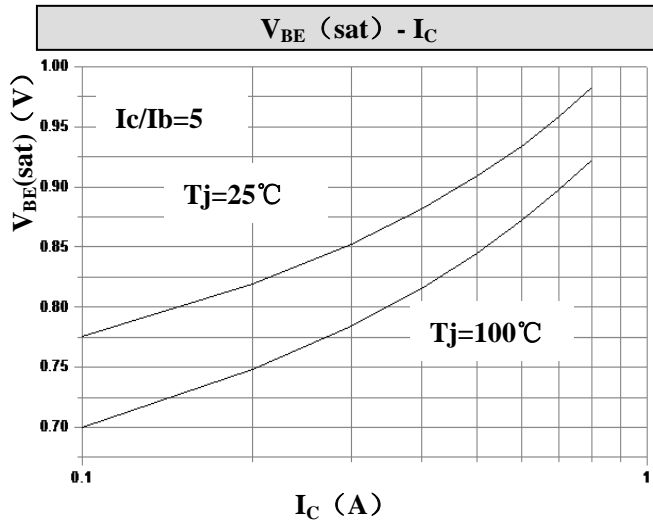
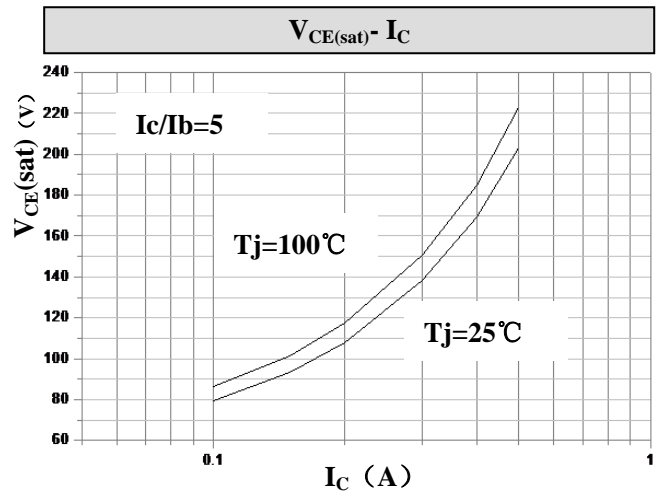
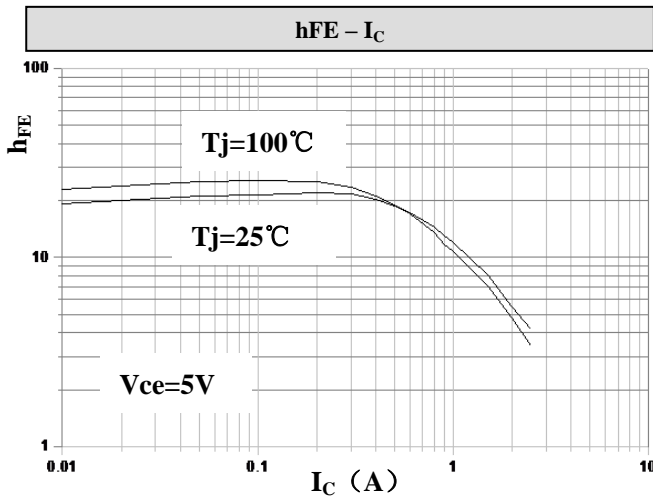
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal Resistance Junction Ambient TO-92/ TO-92-F1/SOT-89	$R_{th(j-a)}$	-	49	$^{\circ}C/W$
结到管壳的热阻 Thermal Resistance Junction Case DPAK/IPAK	$R_{th(j-c)}$	-	12.5	$^{\circ}C/W$
结到管壳的热阻 Thermal Resistance Junction Case TO-126(S)	$R_{th(j-c)}$	-	6.25	$^{\circ}C/W$





NPN 型高压功率开关晶体管
HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

特征曲线 ELECTRICAL CHARACTERISTICS (curves)



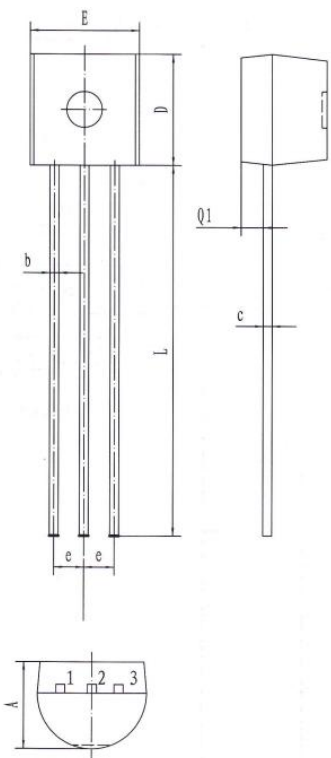


NPN 型高压功率开关晶体管
HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

外形尺寸 PACKAGE MECHANICAL DATA

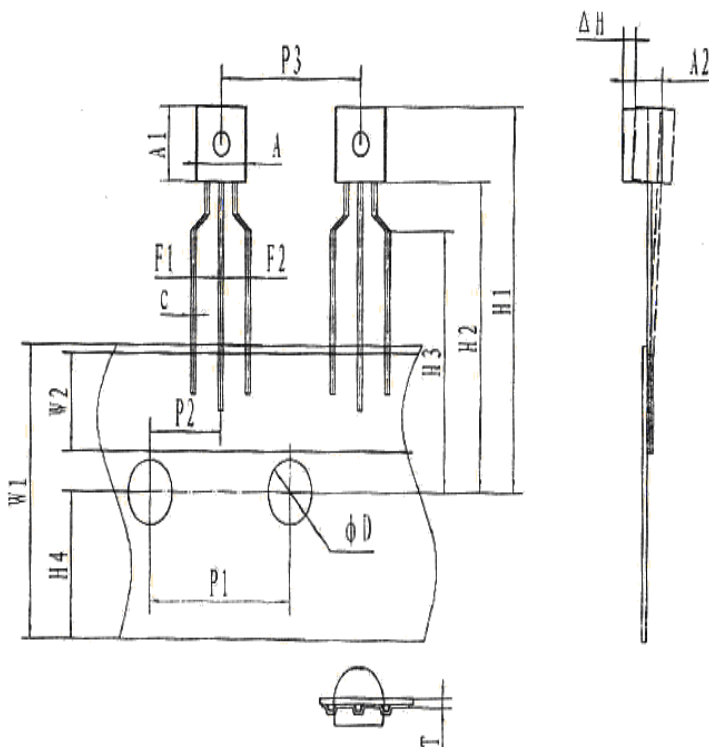
TO-92

单位 Unit : mm



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

TO-92-编带



符号 Symbol	尺寸 (mm) Size (mm)
A	4.50-4.70
A1	4.50-4.70
A2	3.50-3.70
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



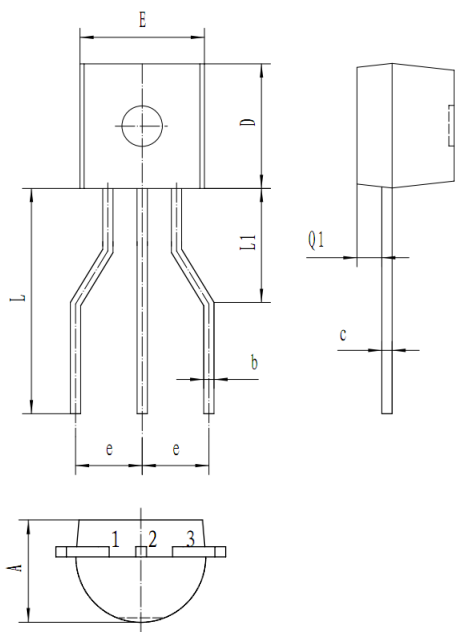


NPN 型高压功率开关晶体管
HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

外形尺寸 PACKAGE MECHANICAL DATA

TO-92-F1

单位 Unit : mm

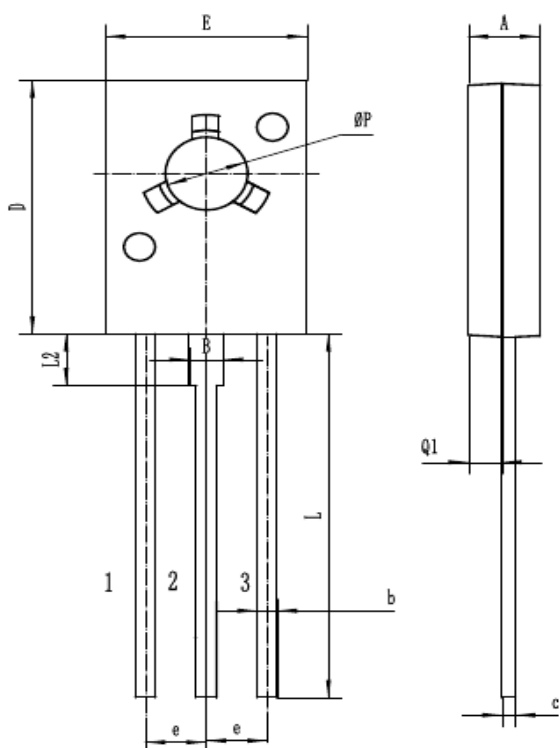


A	3.30-3.90
b	0.35-0.55
c	0.31-0.51
D	4.30-4.90
E	4.30-4.90
e	2.00-3.10
L	5.90-7.10
L1	2.70-3.30
Q1	0.85-0.99

外形尺寸 PACKAGE MECHANICAL DATA

TO-126

单位 Unit : mm



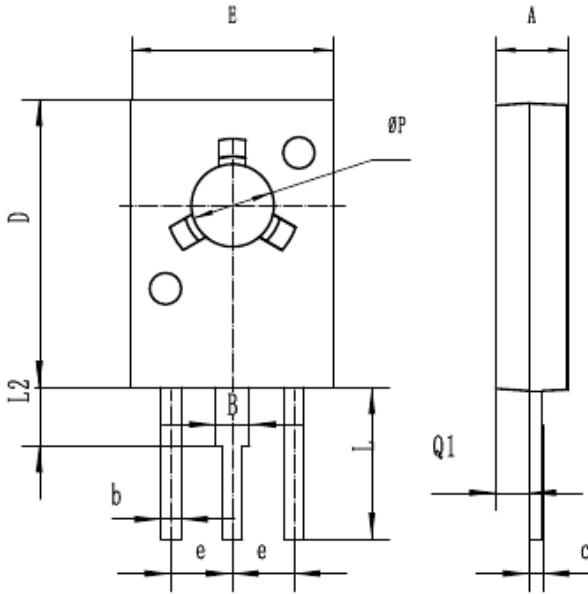
A	2.50-2.90
B	1.22-1.47
b	0.60-0.90
c	0.30-0.70
D	10.50-11.10
E	7.10-8.10
e	2.19-2.39
L	15.30-15.70
L2	2.05-2.35
Q1	1.07-1.47
P	2.95-3.25





外形尺寸 PACKAGE MECHANICAL DATA
TO-126S

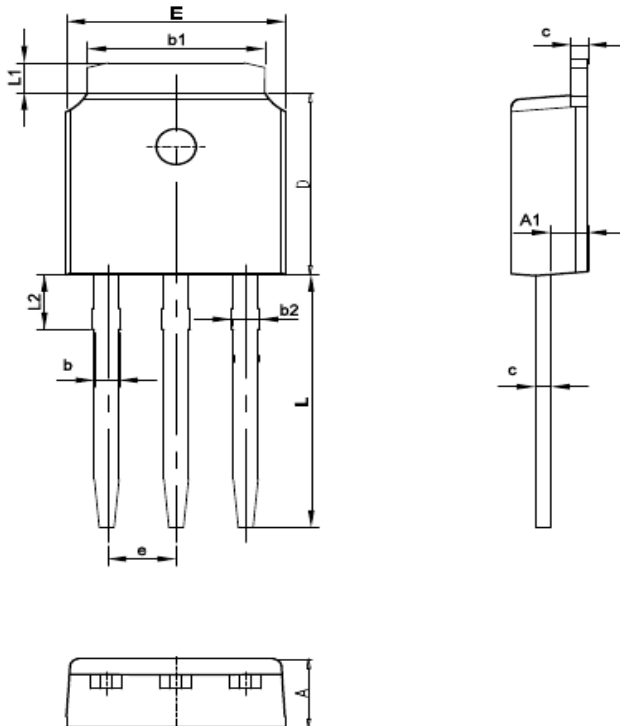
单位 Unit : mm



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	5.30-6.00
L2	2.05-2.35
Q1	1.07-1.47
P	2.95-3.25

外形尺寸 PACKAGE MECHANICAL DATA
IPAK

单位 Unit : mm



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	9.10-9.71
e	2.286BSC
L1	0.82-1.22
L2	0.90-1.20



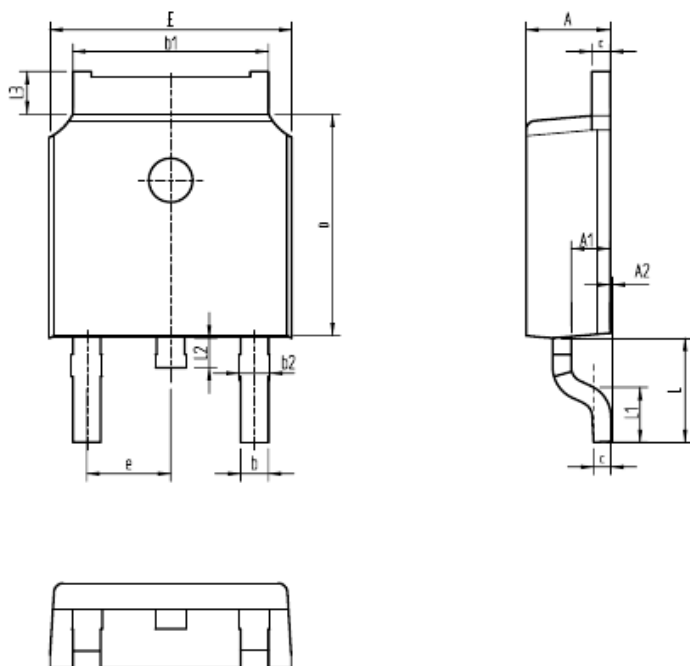


NPN 型高压功率开关晶体管
HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

外形尺寸 PACKAGE MECHANICAL DATA

DPAK

单位 Unit : mm

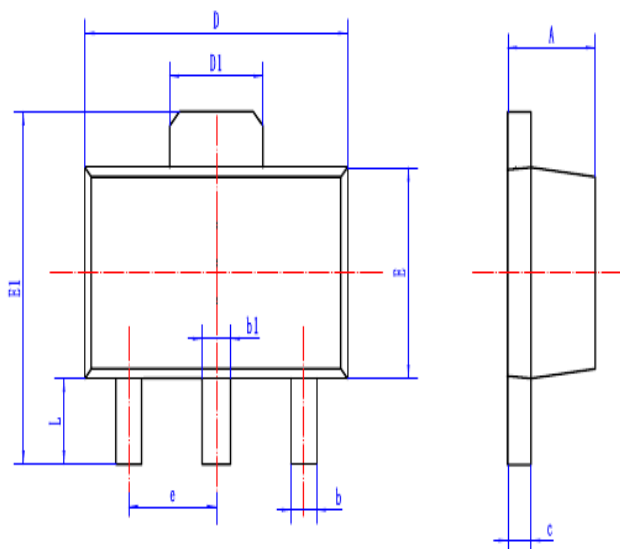


A	2.16-2.41
A1	0.97-1.17
A2	0.00-0.15
b	0.63-0.93
b1	5.13-5.53
b2	0.66-0.96
c	0.40-0.60
D	5.80-6.40
E	6.30-6.90
e	2.286BSC
L	2.50-3.30
L1	1.20-1.80
L2	0.60-1.00
L3	0.85-1.30

外形尺寸 PACKAGE MECHANICAL DATA

SOT-89

单位 Unit : mm



A	1.30-1.70
b	0.30-0.55
b1	0.35-0.65
c	0.30-0.50
D	4.30-4.70
D1	1.55REF
E	2.30-2.60
E1	3.90-4.30
e	1.50TYP
L	0.80-1.20





注意事项

1. 吉林华微电子股份有限公司的产品销售分为直销和销售代理，无论哪种方式，订货时请与公司核实。
2. 购买时请认清公司商标，如有疑问请与公司本部联系。
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

NOTE

1. Jilin Sino-microelectronics co., Ltd sales its product either through direct sales or sales agent, thus, for customers, when ordering , please check with our company.
2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

联系方式

吉林华微电子股份有限公司

公司地址：吉林省吉林市深圳街 99 号
邮编：132013
总机：86-432-64678411
传真：86-432-64665812
网址：www.hwdz.com.cn

销部业务部

地址：吉林省吉林市深圳街 99 号

邮编：132013
电话：86-432-64675588
64675688
64678411
传真：86-432-64671533

CONTACT

JILIN SINO-MICROELECTRONICS CO., LTD.

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.
Post Code: 132013
Tel: 86-432-64678411
Fax: 86-432-64665812
Web Site: www.hwdz.com.cn

MARKET DEPARTMENT

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.
Post Code: 132013
Tel: 86-432-64675588
64675688
64678411

