



## 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

## 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

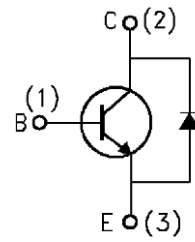
## APPLICATIONS

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

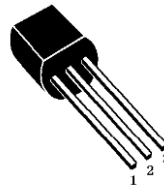
## FEATURES

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

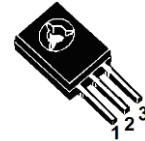
## 封装 Package



## TO-92



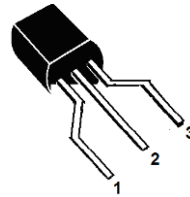
## TO-126S



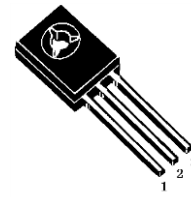
## IPAK



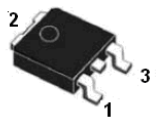
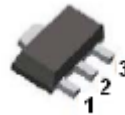
## TO-92-F1



## 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	有卤-编带 Halogen-Free-Reel	有卤-袋装 Halogen-Bag	有卤-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	有卤-条管 Halogen-Free-Tube			印 记 Marking	封 装 Package
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





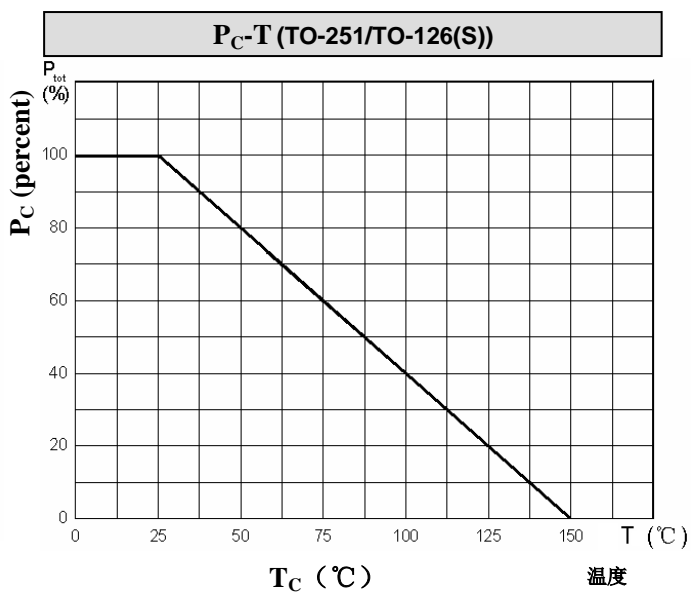
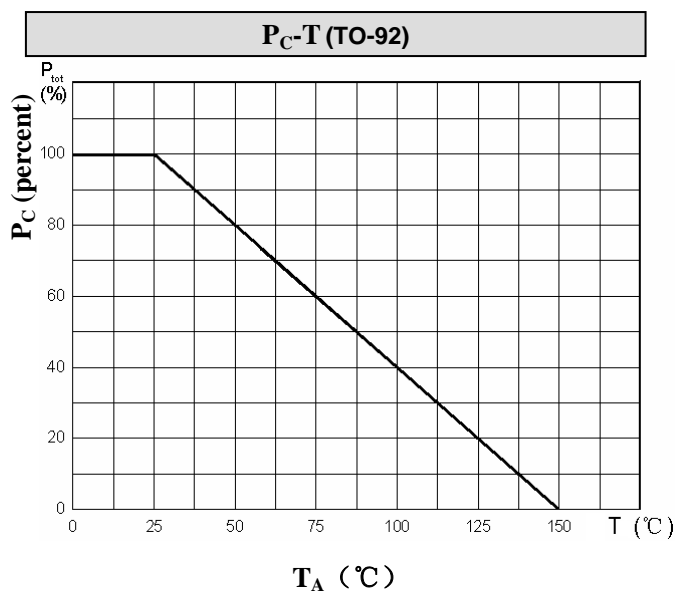
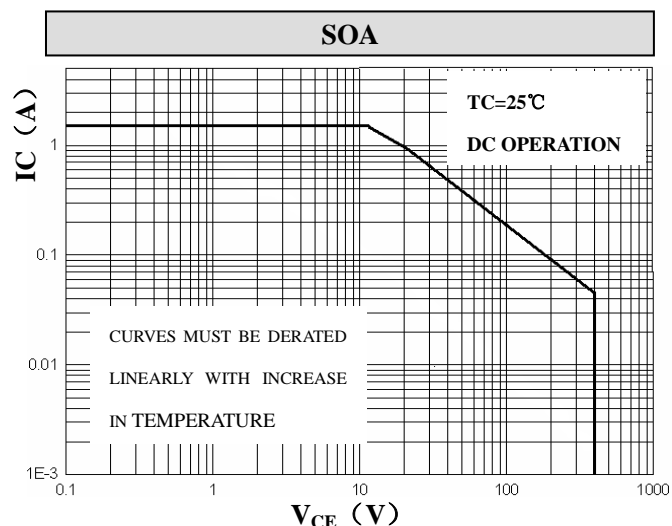
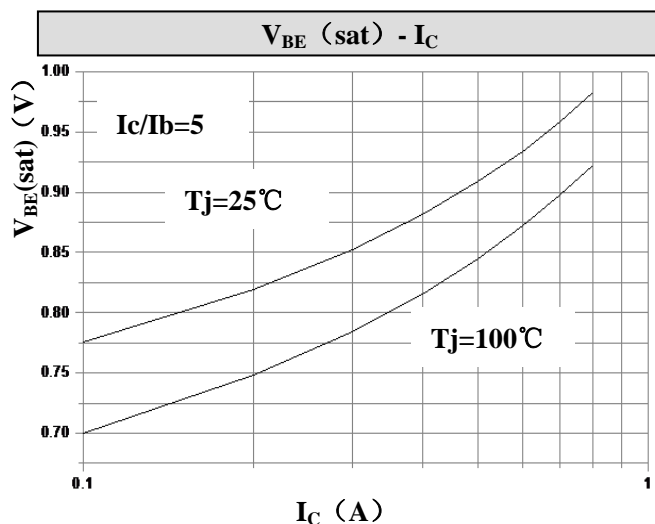
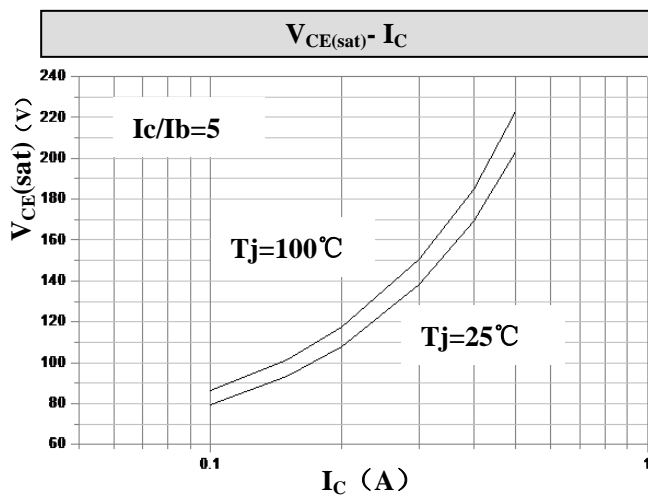
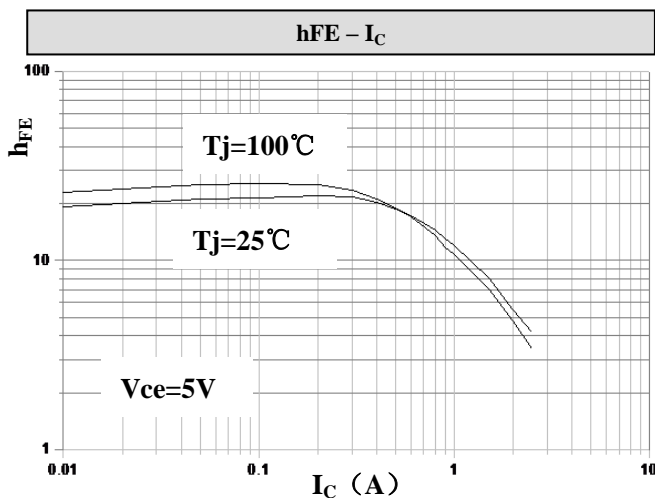
## 电特性 ELECTRICAL CHARACTERISTIC

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	$\mu A$
$I_{CEO}$	$V_{CE}=400V, I_B=0$	-	-	10	$\mu A$
$I_{EBO}$	$V_{EB}=7V, I_C=0$	-	-	5	$\mu A$
hFE	$V_{CE}=10V, I_C=100mA$	19	22	25	-
	$V_{CE}=5V, I_C=1.5A$	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	$\mu S$
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
结到环境的热阻 Thermal Resistance Junction Ambient TO-92/ TO-92-F1/SOT-89	$R_{th(j-a)}$	-	125	$^{\circ}C/W$
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	$^{\circ}C/W$





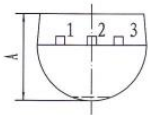
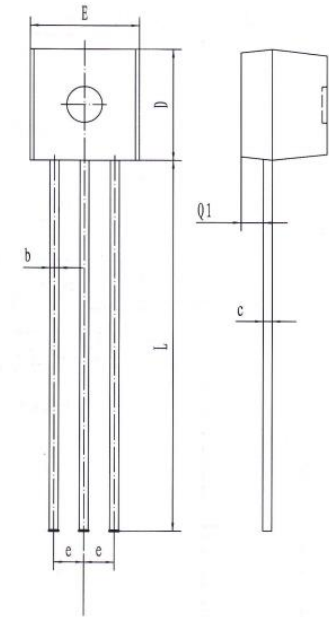


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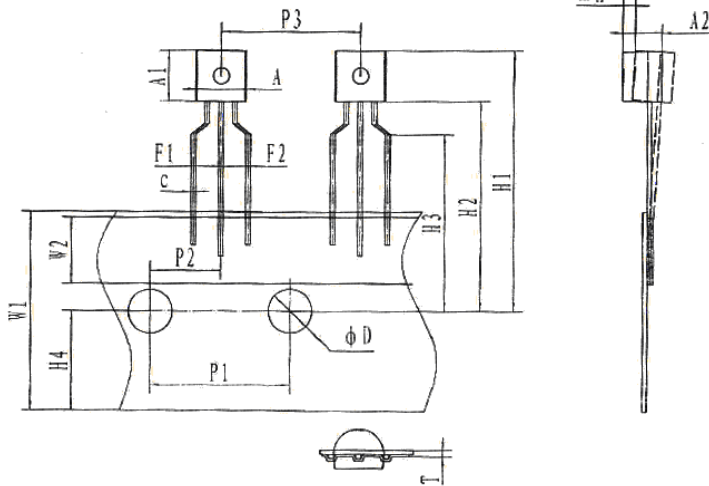
## 外形尺寸 PACKAGE MECHANICAL DATA

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



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



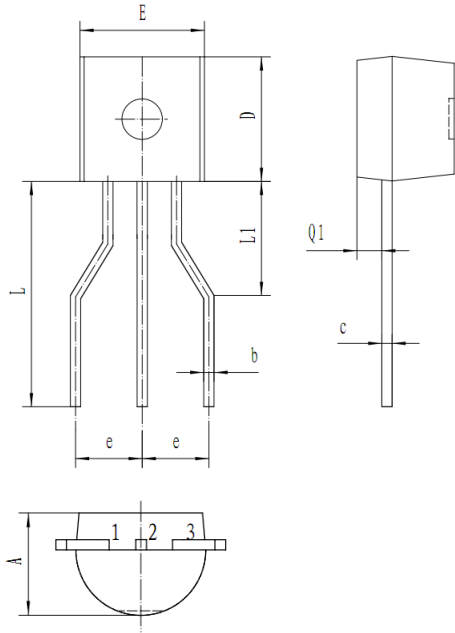


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## 外形尺寸 PACKAGE MECHANICAL DATA

### TO-92-F1

单位 Unit : mm

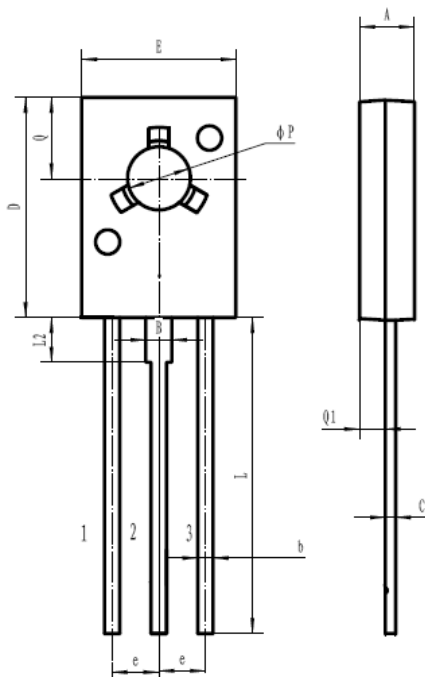


<b>A</b>	3.30-3.90
<b>b</b>	0.35-0.55
<b>c</b>	0.31-0.51
<b>D</b>	4.30-4.90
<b>E</b>	4.30-4.90
<b>e</b>	2.00-3.10
<b>L</b>	5.00-6.00
<b>L1</b>	2.70-3.30
<b>Q1</b>	0.85-1.00

## 外形尺寸 PACKAGE MECHANICAL DATA

### TO-126

单位 Unit : mm



<b>A</b>	2.50-2.90
<b>B</b>	1.22-1.47
<b>b</b>	0.60-0.90
<b>c</b>	0.30-0.70
<b>D</b>	10.50-11.10
<b>E</b>	7.10-8.10
<b>e</b>	2.19-2.39
<b>L</b>	15.30-15.70
<b>L2</b>	2.10-2.30
<b>Q</b>	3.80-4.20
<b>Q1</b>	1.07-1.47
<b>P</b>	3.00-3.20

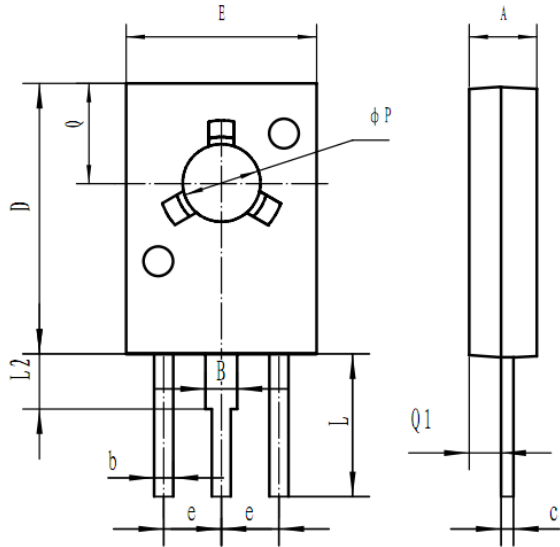




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## 外形尺寸 PACKAGE MECHANICAL DATA TO-126S

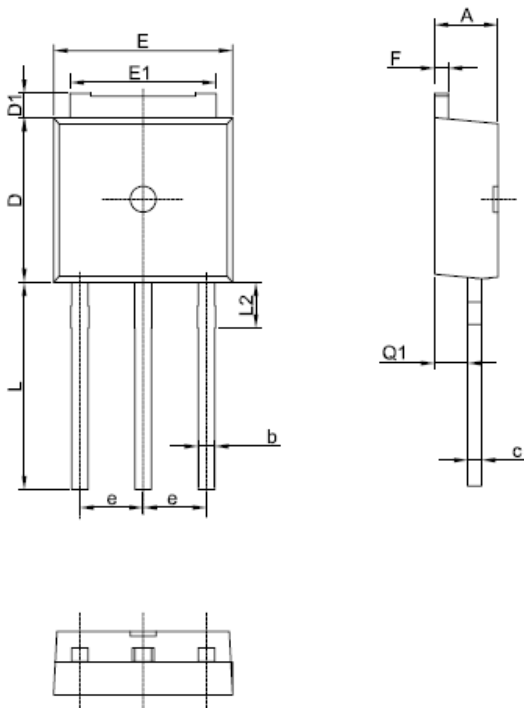
单位 Unit : mm



<b>A</b>	2.50-2.90
<b>B</b>	1.22-1.47
<b>b</b>	0.60-0.90
<b>c</b>	0.30-0.70
<b>D</b>	10.50-11.10
<b>E</b>	7.10-8.10
<b>e</b>	2.19-2.39
<b>L</b>	5.30-6.00
<b>L2</b>	2.10-2.30
<b>Q</b>	3.80-4.20
<b>Q1</b>	1.07-1.47
<b>P</b>	3.00-3.20

## 外形尺寸 PACKAGE MECHANICAL DATA IPAK

单位 Unit : mm



<b>A</b>	2.2-2.4
<b>b</b>	0.70-0.90
<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>L</b>	6.85-7.15
<b>L2</b>	1.8-2.2
<b>Q1</b>	0.8-1.2



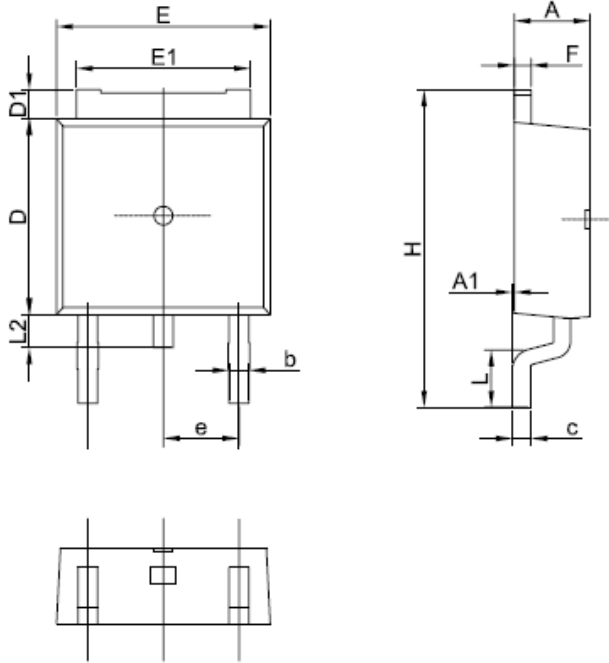


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## 外形尺寸 PACKAGE MECHANICAL DATA

### DPAK

单位 Unit : mm

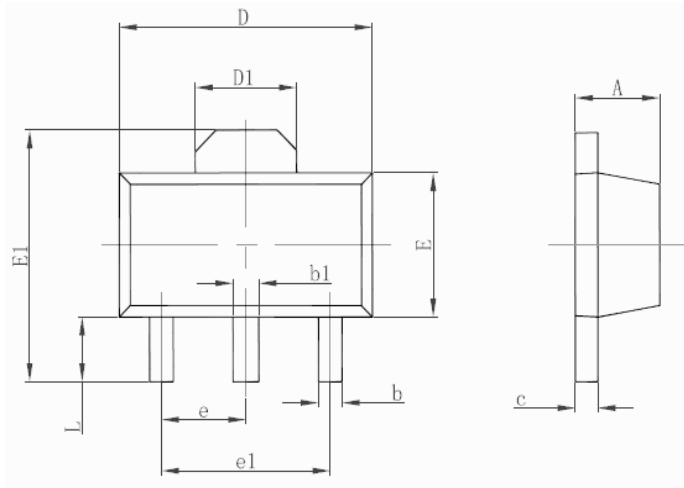


<b>A</b>	2.2-2.4
<b>A1</b>	0.0-0.2
<b>b</b>	0.70-0.90
<b>c</b>	0.45-0.55
<b>D</b>	6.0-6.3
<b>D1</b>	0.8-1.2
<b>E</b>	6.5-6.8
<b>E1</b>	5.2-5.5
<b>e</b>	2.28TYP
<b>F</b>	0.45-0.55
<b>H</b>	9.65-10.45
<b>L</b>	1.0-1.3
<b>L2</b>	0.7-1.3

## 外形尺寸 PACKAGE MECHANICAL DATA

### SOT-89

单位 Unit : mm



<b>A</b>	1.400-1.600
<b>b</b>	0.320-0.520
<b>B1</b>	0.400-0.580
<b>c</b>	0.350-0.440
<b>D</b>	4.400-4.600
<b>D1</b>	1.550 REF
<b>E</b>	2.300-2.600
<b>E1</b>	3.940-4.250
<b>e</b>	1.500TYP
<b>e1</b>	3.000TYP
<b>L</b>	0.900-1.200





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