



3DD4120PL

主要参数 MAIN CHARACTERISTICS

I_C	1.5A
V_{CEO}	200V
$P_C(TO-92/TO-92-F1)$	1W
$P_C(TO-126/TO-126S)$	20W

用途

- 节能灯
- 电子镇流器
- 电子变压器
- 一般功率放大电路

APPLICATIONS

- Energy-saving light
- Electronic ballasts
- Electronic transformer
- Commonly power amplifier circuit

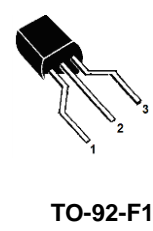
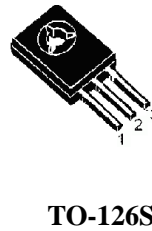
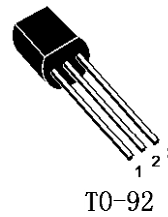
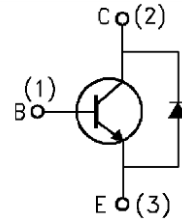
产品特性

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

FEATURES

- Middling 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	封 装 Package
有卤-条管 Halogen-Tube	无卤-条管 halogen-Free-Tube	有卤-编带 Halogen-Reel	无卤-编带 Halogen-Free-Reel		
N/A	N/A	3DD4110PL-T-A	3DD4110PL-T-AR	4120PL	TO-92
		3DD4110PL-T1-A	3DD4110PL-T1-AR	4120PL	TO-92-F1
3DD4120PL-M-B	3DD4120PL-M-BR	N/A	N/A	4120PL	TO-126
3DD4120PL-M1-B	3DD4120PL-M1-BR	N/A	N/A	4120PL	TO-126S
有卤-袋装 Halogen-Bag	无卤-袋装 Halogen-Free-Bag			印 记 Marking	封 装 Package
3DD4120PL-T-C	3DD4120PL-T-CR	N/A	N/A	4120PL	TO-92
3DD4120PL-T1-C	3DD4120PL-T1-CR	N/A	N/A	4120PL	TO-92-F1
3DD4120PL-M-C	3DD4120PL-M-CR	N/A	N/A	4120PL	TO-126
3DD4120PL-M1-C	3DD4120PL-M1-CR	N/A	N/A	4120PL	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}	350	V
集电极—发射极直流电压	Collector- Emitter Voltage ($I_B=0$)	V_{CEO}	200	V
发射极—基极直流电压	Emitter-Base Voltage	V_{EBO}	7	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
最大基极直流电流	Base Current (DC)	I_B	1	A
最大基极脉冲电流	Base Current (pulse)	I_{BP}	2	A
最大集电极耗散功率	Total Dissipation (TO-92/TO-92-F1)	P_C	1	W
最大集电极耗散功率	Total Dissipation (TO-126/ TO-126S)	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

注：pulse电流宽度为小于5ms的非重复单脉冲。 Pulse Test: Pulse Width = 5.0 ms, Duty Cycle < 10%.

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
$V(BR)_{CEO}$	$I_C=10mA, I_B=0$	200	-	-	V
$V(BR)_{CBO}$	$I_C=1mA, I_E=0$	350	-	-	V
$V(BR)_{EBO}$	$I_E=1mA, I_C=0$	7	-	-	V
I_{CBO}	$V_{CB}=350V, I_E=0$	-	-	100	μA
I_{CEO}	$V_{CE}=200V, I_B=0$	-	-	50	μA
I_{EBO}	$V_{EB}=7V, I_C=0$	-	-	10	μA
Hfe(1)	$V_{CE}=5V, I_C=0.2A$	8	-	50	
Hfe(2)	$V_{CE}=5V, I_C=1.5A$	5	-	-	
$V_{CE(sat)}(1)$	$I_C=0.5A, I_B=0.1A$	-	-	0.8	V
$V_{CE(sat)}(2)$	$I_C=1.0A, I_B=0.2A$	-	-	1.5	V
$V_{BE(sat)}$	$I_C=1A, I_B=0.25A$	-	-	1.5	V
tf	$V_{CC}=24V, I_C=0.5A, I_{B1}=-I_{B2}=0.1A$	-	-	0.5	μS
ts		-	-	4	μS
fT	$V_{CE}=10V, I_C=0.5A$	4	-	-	MHz

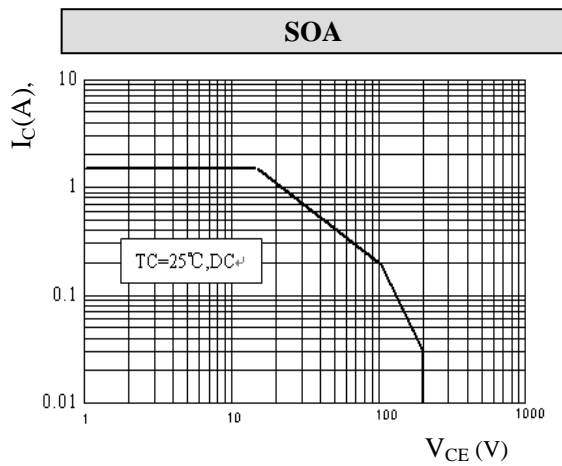
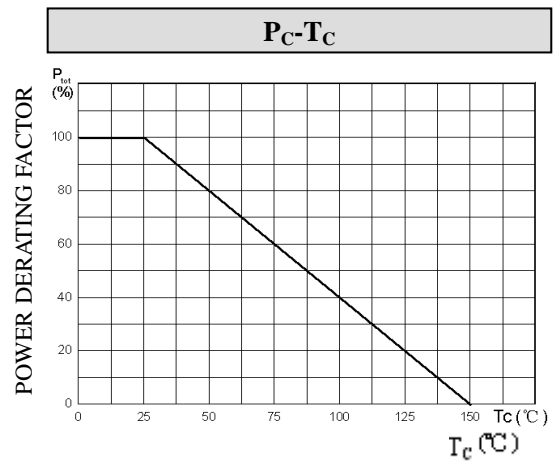
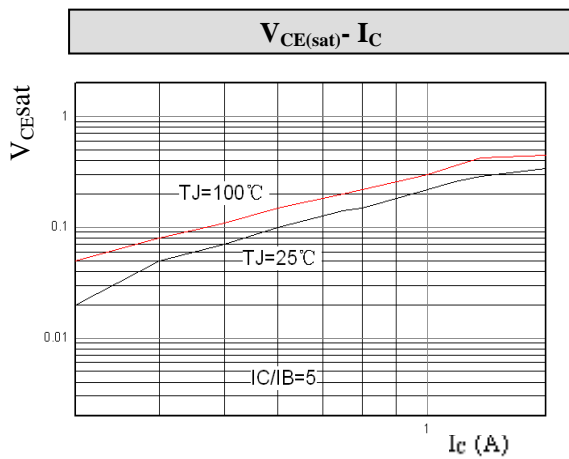
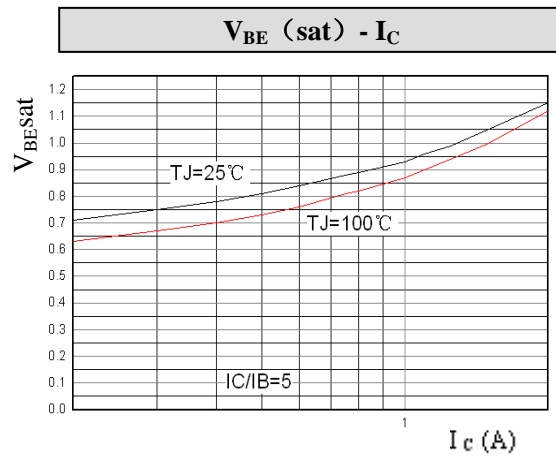
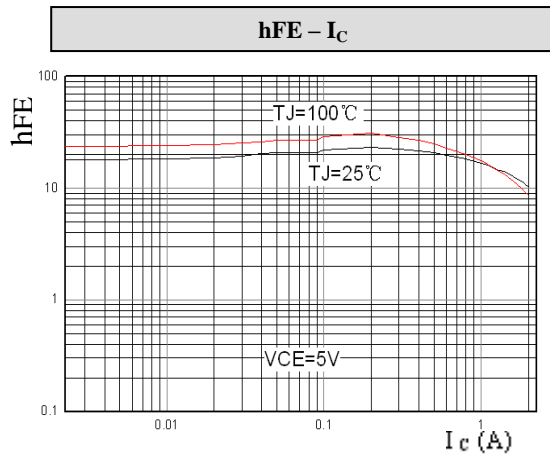
热特性 THERMAL CHARACTERISTIC

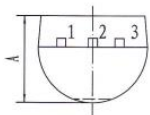
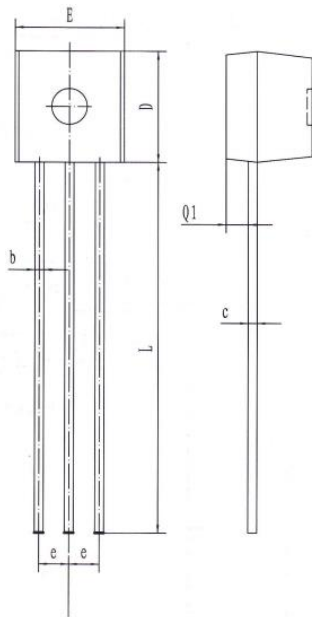
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到环境的热阻 TO-92/ TO-92-F1 Thermal Resistance Junction Ambient TO-92/ TO-92-F1	$R_{th(j-a)}$	-	125	°C/W
结到管壳的热阻 TO-126/TO-126S Thermal Resistance Junction Case TO-126/ TO-126S	$R_{th(j-c)}$	-	6.25	°C/W



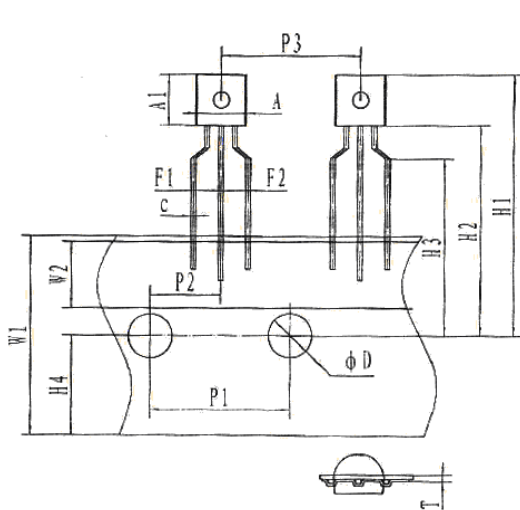


特征曲线 ELECTRICAL CHARACTERISTICS (curves)





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

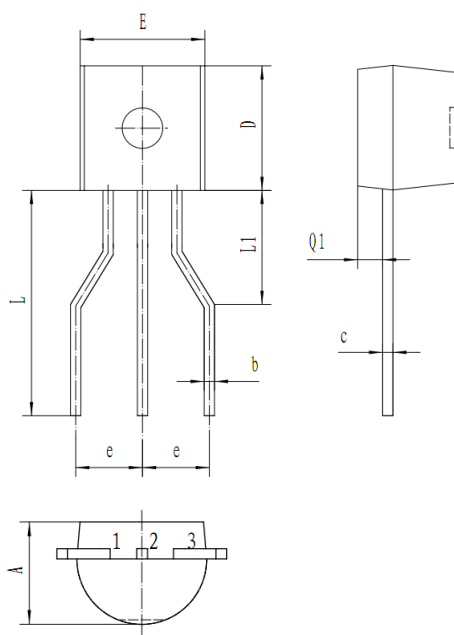




外形尺寸 PACKAGE MECHANICAL DATA

TO-92-F1

单位 Unit : mm

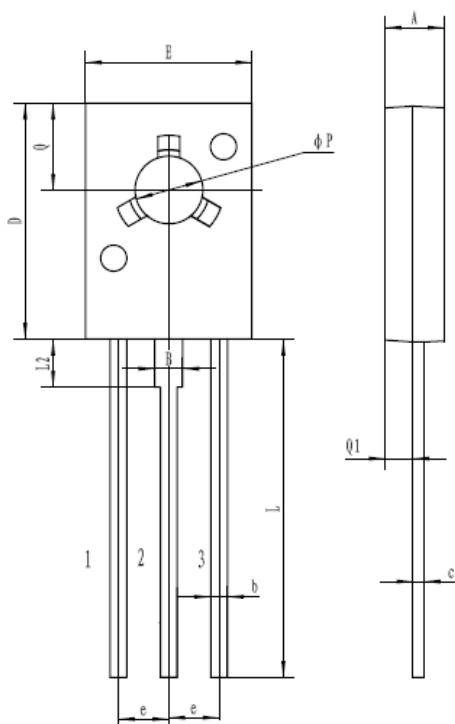


A	3.30-3.90
b	0.35-0.55
c	0.31-0.51
D	4.30-4.90
E	4.30-4.90
e	1.17-1.37
L	5.00-6.00
L1	2.70-3.30
Q1	0.85-1.00

外形尺寸 PACKAGE MECHANICAL DATA

TO-126

单位 Unit : mm



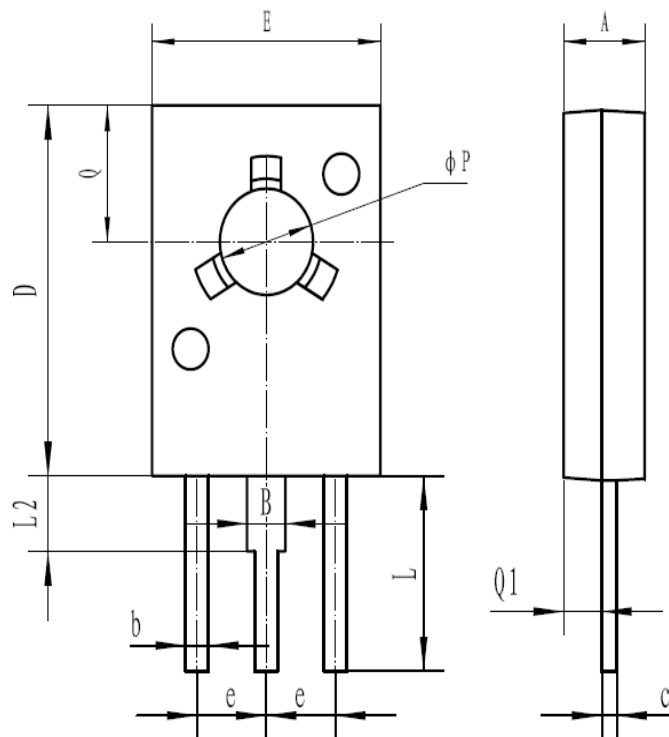
符号 symbol	MIN	MAX
A	2.50	2.90
B	1.22	1.47
b	0.60	0.90
c	0.30	0.70
D	10.50	11.10
E	7.10	8.10
e	2.19	2.39
L	15.30	15.70
L2	2.10	2.30
Q	3.80	4.20
Q1	1.07	1.47
P	3.00	3.20





单位 Unit : mm

TO-126S



符号 symbol	MIN	MAX
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	5.3	6.0
L2	2.10	2.30
Q	3.80	4.20
Q1	1.07	1.47
P	3.00	3.20



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