

**NPN MJE 系列晶体管/MJE SERIES TRANSISTORS**

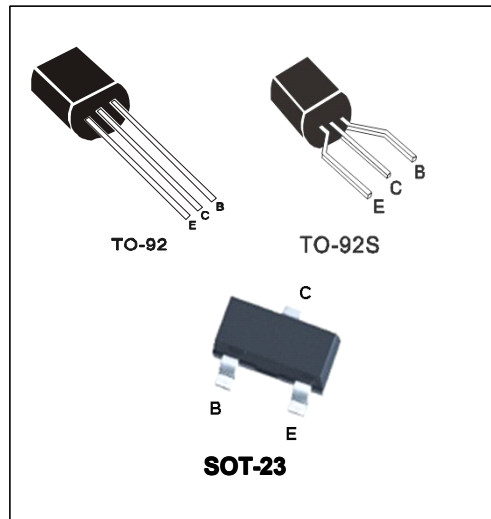
**MJE13001**

- 特点: 耐高压 开关速度快 安全工作区宽 符合 RoHS 规范
- FEATURES: ■HIGH VOLTAGE CAPABILITY ■HIGH SPEED SWITCHING ■WIDE SOA ■RoHS COMPLIANT
- 应用: 节能灯 电子镇流器
- APPLICATION: ■FLUORESCENT LAMP ■ELECTRONIC BALLAST

● 最大额定值 (Tc=25°C)

● Absolute Maximum Ratings (Tc=25°C) TO-92/92S/SOT-23

参数 PARAMETER	符号 SYMBOL	额定值 VALUE	单位 UNIT
集电极-基极电压 Collector-Base Voltage	V <sub>CB0</sub>	500	V
集电极-发射极电压 Collector-Emitter Voltage	V <sub>CEO</sub>	400	V
发射极-基极电压 Emitter- Base Voltage	V <sub>EBO</sub>	9	V
集电极电流 Collector Current	I <sub>c</sub>	0.3	A
集电极耗散功率 Total Power Dissipation	P <sub>tot</sub>	TO-92/92S:7 SOT-23:7	W
最高工作温度 Junction Temperature	T <sub>j</sub>	150	°C
贮存温度 Storage Temperature t <sub>f e</sub>	T <sub>stg</sub>	-65-150	°C



●电特性 (Tc=25°C)

●Electronic Characteristics (Tc=25°C)

参数名称 CHARACTERISTICS	符号 SYMBOL	测试条件 TEST CONDITION	最小值 MIN	最大值 MAX	单位 UNIT
集电极-基极截止电流 Collector-Base Cutoff Current	I <sub>cBO</sub>	V <sub>CB</sub> =500V		100	μA
集电极-发射极截止电流 Collector-Emitter Cutoff Current	I <sub>CEO</sub>	V <sub>CE</sub> =400V, I <sub>B</sub> =0		250	μA
集电极-基极电压 Collector-Base Voltage	V <sub>CB0</sub>	I <sub>c</sub> =1mA, I <sub>E</sub> =0	500		V
集电极-发射极电压 Collector-Emitter Voltage	V <sub>CEO</sub>	I <sub>c</sub> =10mA, I <sub>B</sub> =0	400		V
发射极-基极电压 Emitter- Base Voltage	V <sub>EBO</sub>	I <sub>E</sub> =1mA, I <sub>C</sub> =0	9		V
集电极-发射极饱和电压 Collector-Emitter Saturation Voltage	V <sub>cesat</sub>	I <sub>c</sub> =0.05A, I <sub>B</sub> =0.01A I <sub>c</sub> =200mA, I <sub>B</sub> =50mA		0.3 0.5	V
发射极-基极饱和电压 Base-Emitter Saturation Voltage	V <sub>besat</sub>	I <sub>c</sub> =50mA, I <sub>B</sub> =10mA		1.1	V
电流放大倍数 DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>c</sub> =1mA V <sub>CE</sub> =20V, I <sub>c</sub> =20mA V <sub>CE</sub> =5V, I <sub>c</sub> =250mA	7 10 5	40	
贮存时间/Storage Time	t <sub>s</sub>	V <sub>CC</sub> =5V, I <sub>c</sub> =0.1A	1.0	2.5	μs
下降时间/Falling Time	t <sub>f</sub>	(UI9600)		0.8	

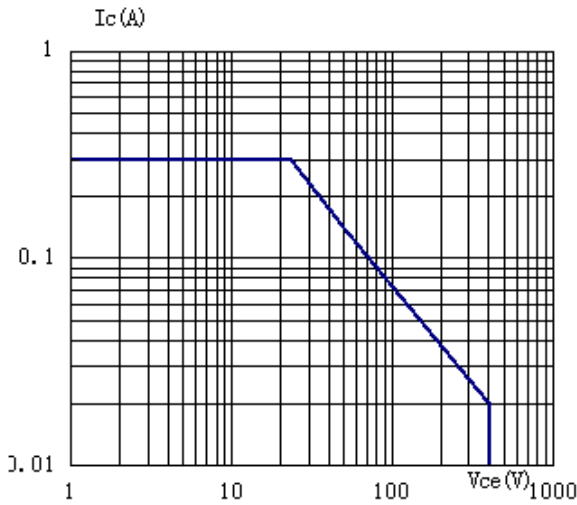
● 订单信息/ORDERING INFORMATION:

包装形式/PACKING	订货编码/ORDERING CODE	
	普通塑封料/ Normal Package Material	无卤塑封料/Halogen Free
TO-92 普通袋装/NORMAL PACKING	MJE13001 TO-92	MJE13001 TO-92-HF
<b>TO-92S</b> 普通袋装/NORMAL PACKING	MJE13001 TO-92S	MJE13001 TO-92S-HF
TO-92 盒式编带/AMMOPACK	MJE13001 TO-92-AP	MJE13001 TO-92-AP-HF
SOT-23 盘式编带/TAPE&REEL PACKING	MJE13001 SOT-23-TR	MJE13001 SOT-23-TR-HF

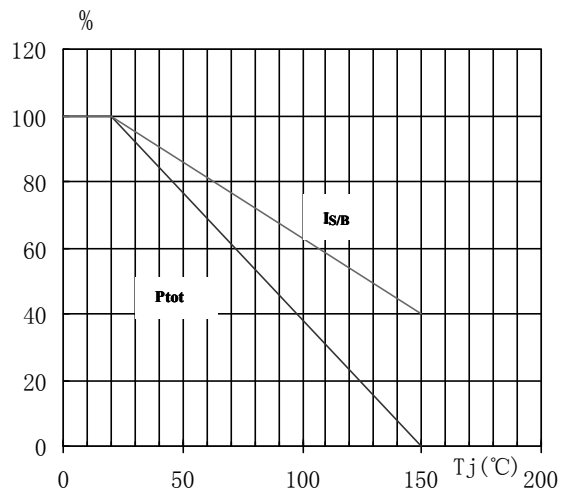
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MJE13001

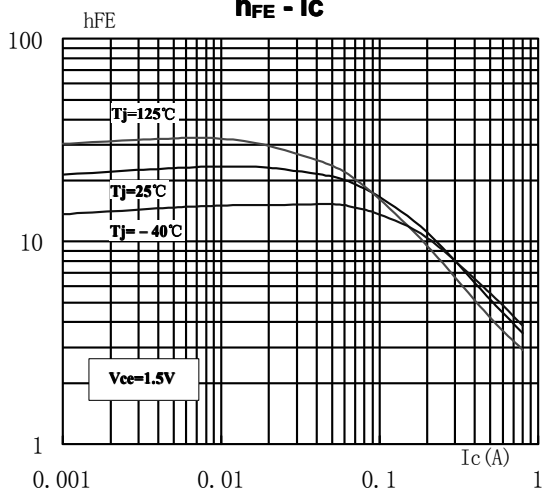
SOA (DC)



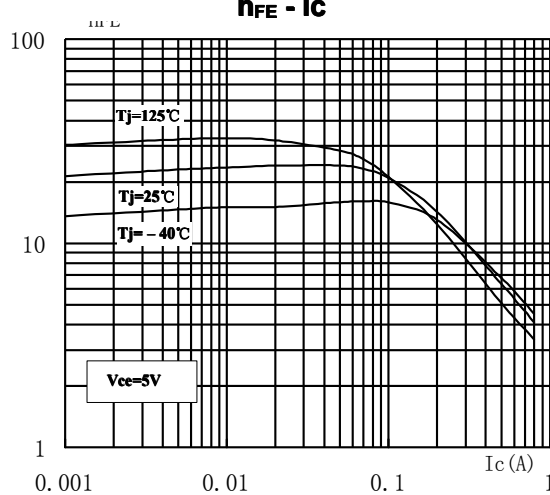
$P_{tot} \propto T_j$



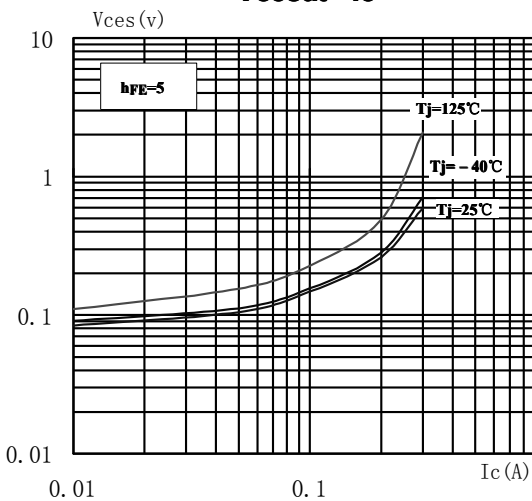
$h_{FE} - I_c$



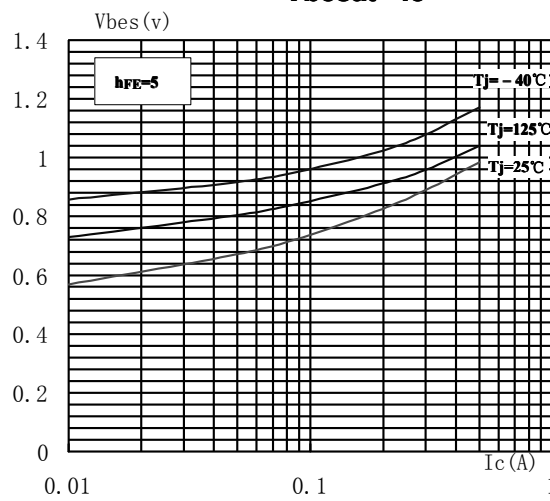
$h_{FE} - I_c$



$V_{cesat} - I_c$



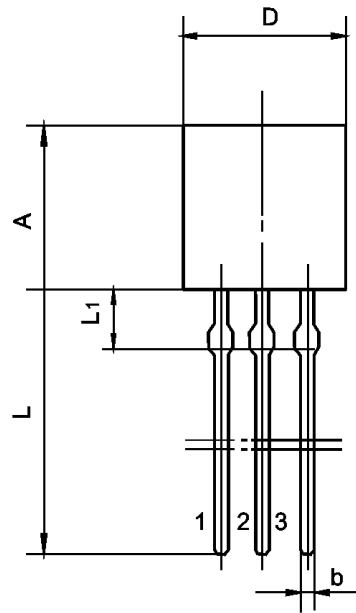
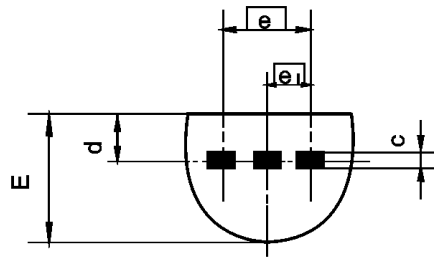
$V_{besat} - I_c$



## TO-92 封装机械尺寸 TO-92 MECHANICAL DATA

单位:毫米/UNIT: mm

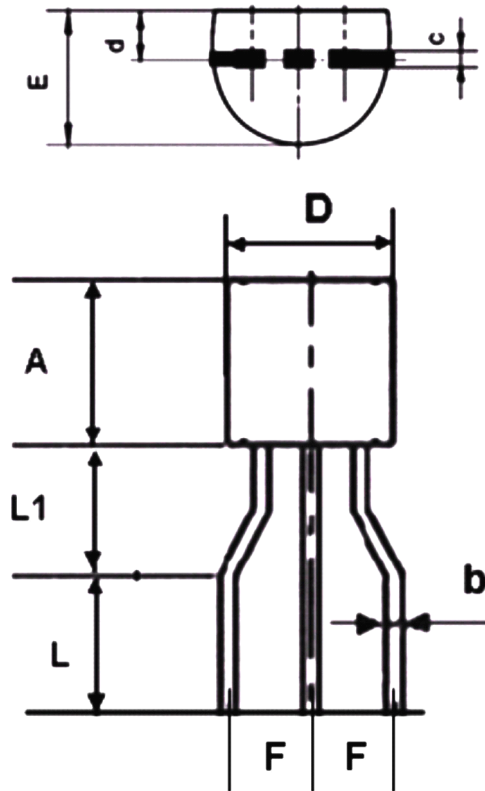
符号/SYMBOL	最小值/min	典型值/nom	最大值/max
A	4.30		5.30
b	0.30		0.55
c	0.30		0.50
$\phi D$	4.30		5.20
D			
d	1.00		1.70
E	3.20		4.20
e		2.54	
e1		1.27	
L	12.70		15.00
L1	1.50		2.00



## TO-92S 封装机械尺寸 TO-92S MECHANICAL DATA

单位:毫米/UNIT: mm

符号/SYMBOL	最小值/min	典型值/nom	最大值/max
A	4.30		5.30
b	0.30		0.55
c	0.30		0.50
D( $\phi$ D)	4.30		5.20
d	1.00		1.70
E	3.20		4.20
F	2.25	2.40	2.55
L	3.20		3.80
L1	2.60		2.70

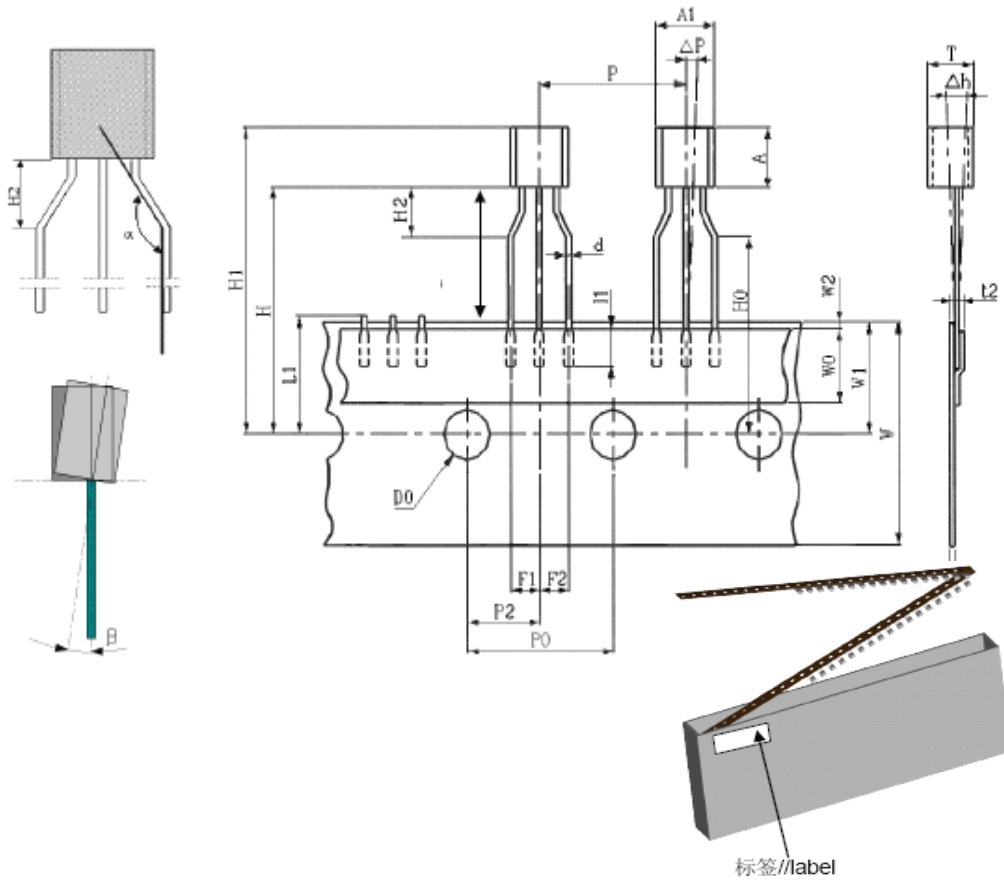


**TO-92-AP 编带规格尺寸**  
**TO-92 AMMOPACK DATA**

单位:毫米/UNIT: mm

符号 SYMBOL	最小值 min	典型值 nom	最大值 max	符号 SYMBOL	最小值 min	典型值 nom	最大值 max
A	4.30		5.30	d	0.30		0.55
A1	4.30		5.20	T	3.20		4.20
DO	3.80	4.00	4.20	$\beta$	-	-	2° 10'
F1/F2	2.25	2.40	2.55	l1	2.50		
P	11.70	12.70	13.70	L1			11.00
PO	12.40	12.70	13.00	W	17.50	18.00	19.00
P2	5.95	6.35	6.75	W0	5.70	6.00	6.30
H	18.35		19.45	W1	8.50	9.00	9.75
H0	15.50	16.00	16.50	W2			0.50
H1			24.50	$\Delta h$	-1.00	0.00	1.00
H2	2.60		2.70	$\Delta P$	-1.00	0.00	1.00
H3	9.50			t1	0.35		0.65
$\alpha$	130°	135°	140°	t2			1.44

盒装量/BASE QUANTITY: 3000pcs/box



**SOT-23 封装机械尺寸**  
**SOT-23 MECHANICAL DATA**

单位:毫米/UNIT: mm

符号/SYMBOL	最小值/min	典型值/nom	最大值/max
A	2.70		3.10
B	1.15		1.50
C			1.30
D	0.35		0.55
E	2.20		2.70
G	1.70		2.10
H	0.85		10.05
J	0.05		0.20
K	0.00		0.10
L	0.45		0.65
M	0.20		
N	0.90		1.20
P		7°	

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