

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

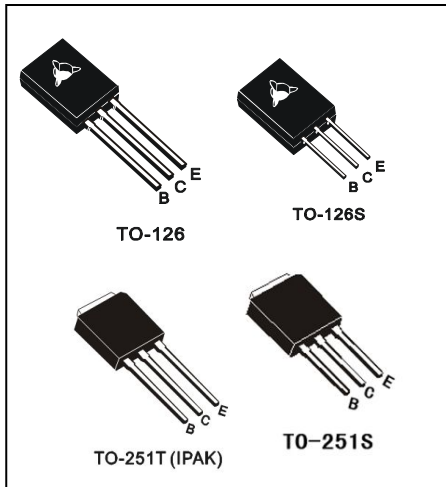
**MJE13003BR**

- 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 电子变压器
- APPLICATION: ■FLUORESCENT LAMP ■ELECTRONIC BALLAST ■ELECTRONIC TRANSFORMER

●最大额定值 (Tc=25°C)

●Absolute Maximum Ratings (Tc=25°C) TO-126/126S/251T/251S

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>	600	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>	2.0	A
集电极耗散功率 Total Power Dissipation	P <sub>tot</sub>	30	W
最高工作温度 Junction Temperature	T <sub>j</sub>	150	°C
贮存温度 Storage Temperature	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>CB0</sub>	V <sub>CB</sub> =600V		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	600		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> =0.5A, I <sub>B</sub> =0.1A		0.35	V
		I <sub>C</sub> =1.5A, I <sub>B</sub> =0.5A		0.85	
发射极-基极饱和电压 Base-Emitter Saturation Voltage	V <sub>besat</sub>	I <sub>C</sub> =0.5A, I <sub>B</sub> =0.1A		1.2	V
		V <sub>CE</sub> =5V, I <sub>C</sub> =1mA	7		
		V <sub>CE</sub> =10V, I <sub>C</sub> =0.1A	10	40	
电流放大倍数 DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =2.0A	5		
		V <sub>CC</sub> =5V, I <sub>C</sub> =0.25A (UI9600)	1.5	3.0	
贮存时间 Storage Time	t <sub>s</sub>	V <sub>CC</sub> =5V, I <sub>C</sub> =0.25A (UI9600)			μs
下降时间 Falling Time	t <sub>f</sub>			0.8	

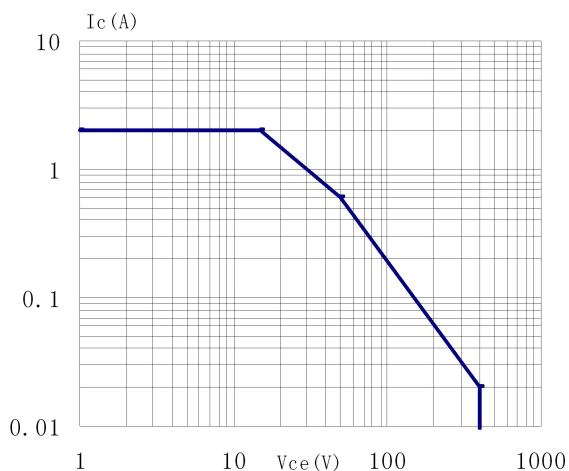
●订单信息/ORDERING INFORMATION:

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-126 普通袋装/NORMAL PACKING	MJE13003BR TO-126	MJE13003BR TO-126-HF
TO-126S 普通袋装/NORMAL PACKING	MJE13003BR TO-126S	MJE13003BR TO-126S-HF
TO-251T 或 251S 普通袋装/NORMAL PACKING	MJE13003BR TO-251T 或 251S	MJE13003BR TO-251T-HF 或 251S-HF

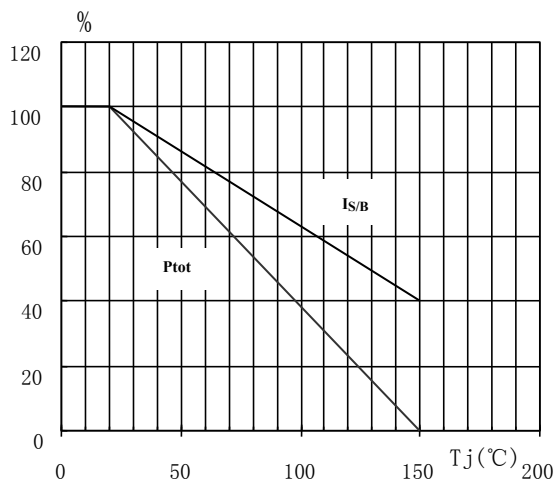
NPN MJE 系列晶体管/MJE SERIES TRANSISTORS

MJE13003BR

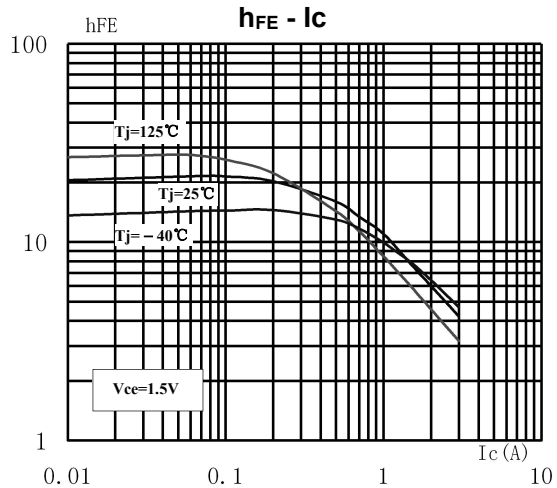
SOA (DC)



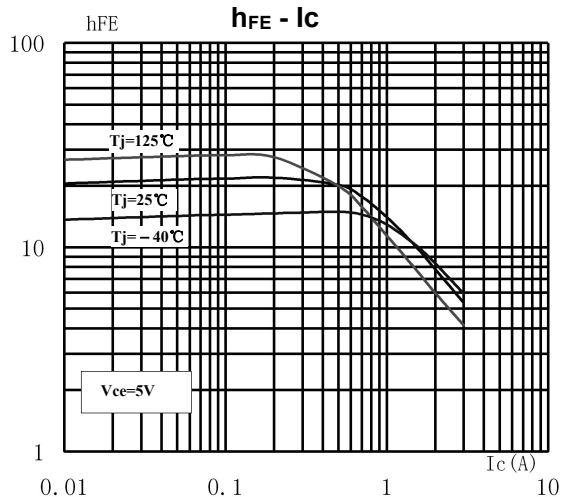
$P_{tot} \propto T_j$



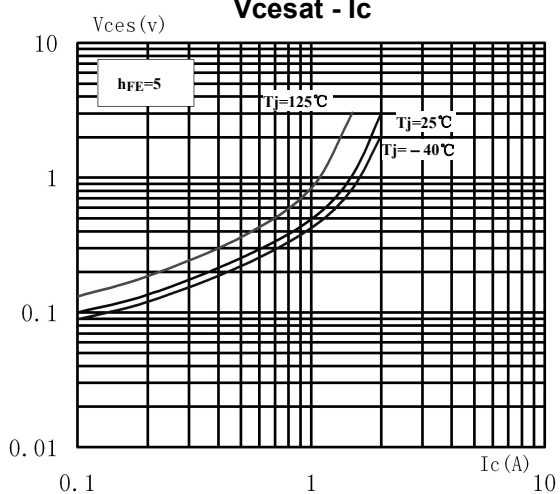
$h_{FE} - I_c$



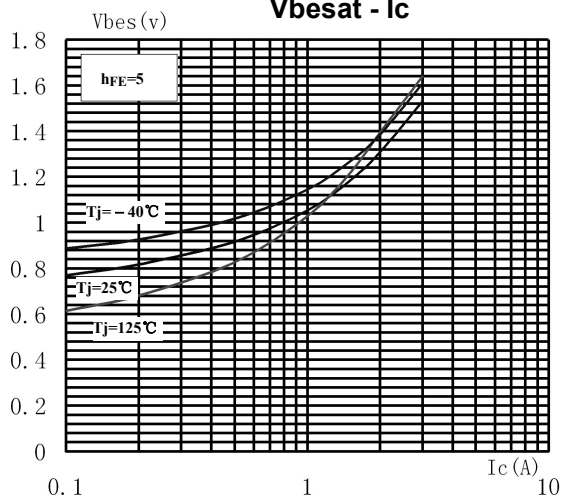
$h_{FE} - I_c$



$V_{cesat} - I_c$



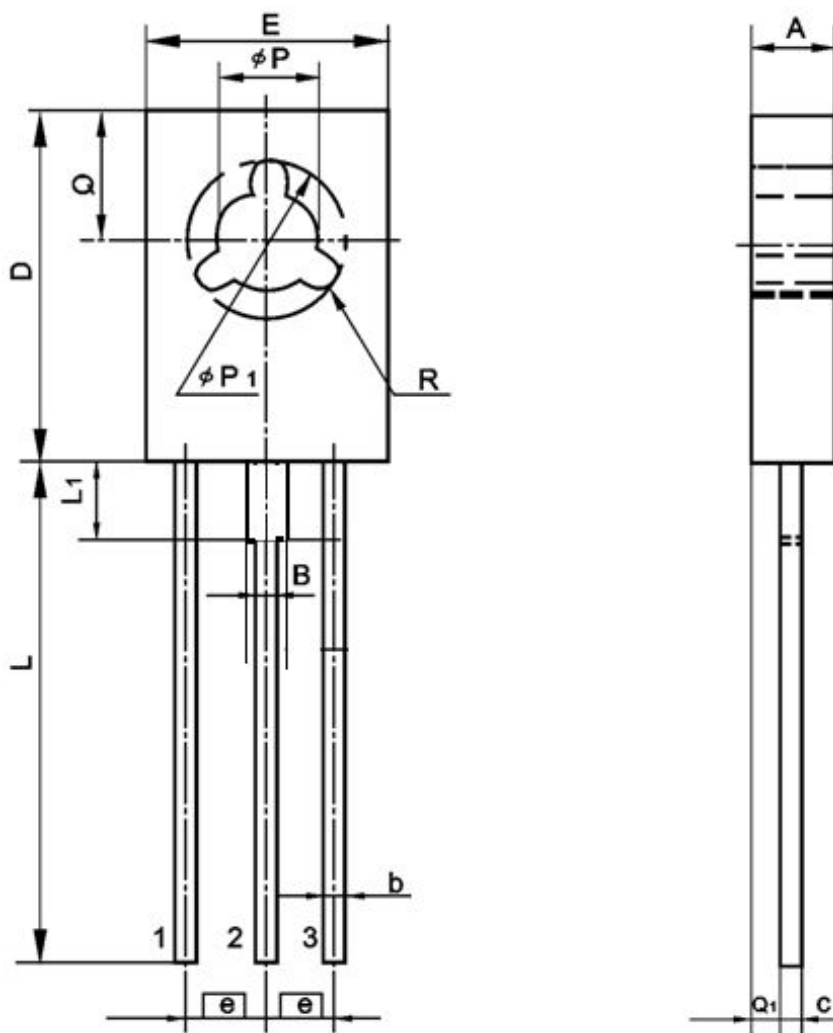
$V_{besat} - I_c$



## TO-126 封装机械尺寸 TO-126 MECHANICAL DATA

单位:毫米/UNIT: mm

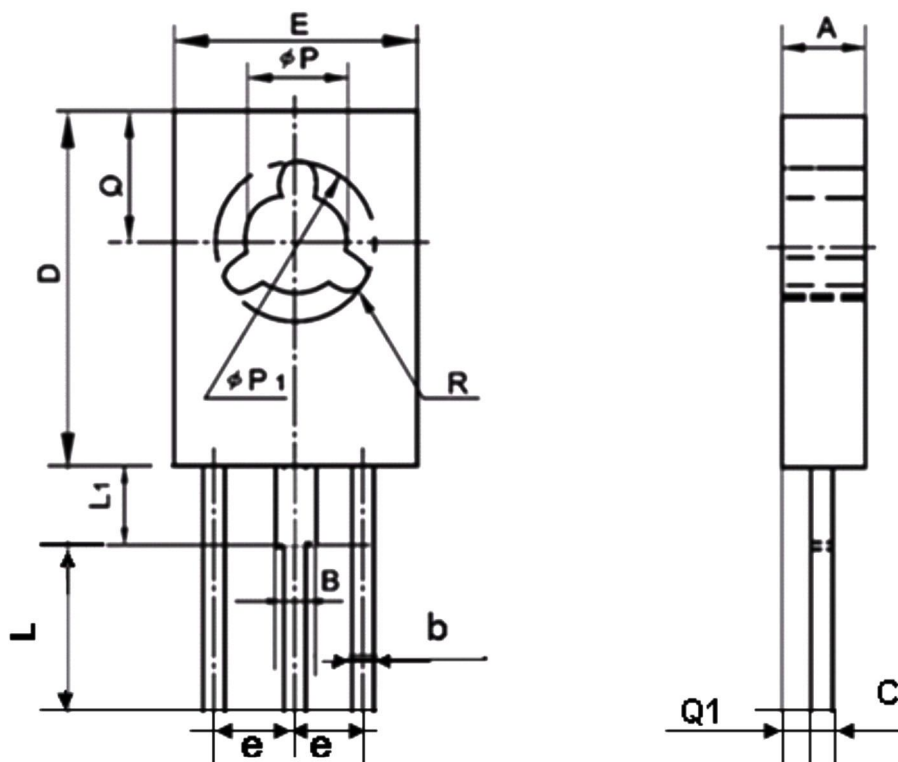
符号 SYMBOL	最小值 min	典型值 nom	最大值 max	符号 SYMBOL	最小值 min	典型值 nom	最大值 max
A	2.30		2.80	L	15.00		16.50
B	1.15		1.42	L1	1.50		2.54
b	0.65		0.90	$\phi P$	2.90		3.60
c	0.35		0.65	$\phi P1$		5.00	
D	10.50		11.10	Q	3.60		4.40
E	7.20		7.80	Q1	0.90		1.50
e		2.29		R		0.50	



## TO-126S 封装机械尺寸 TO-126S MECHANICAL 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	2.30		2.80	L	3.20		3.80
B	1.15		1.42	L1	1.50		2.54
b	0.65		0.90	$\phi P$	2.90		3.60
c	0.35		0.65	$\phi P1$		5.00	
D	10.50		11.10	Q	3.60		4.40
E	7.20		7.80	Q1	0.90		1.50
e		2.29		R		0.50	

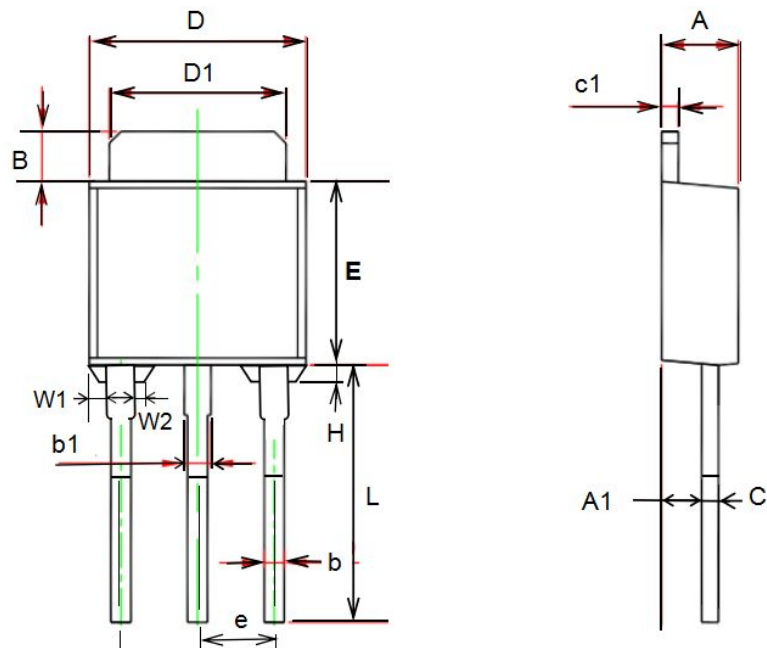


## TO-251T 封装机械尺寸 TO-251T (IPAK) MECHANICAL DATA

单位:毫米/UNIT: mm

符号/SYMBOL	最小值/min	典型值/nom	最大值/max
A	2.10		2.50
A <sub>1</sub>	0.95		1.30
B	0.80		1.25
b	0.50		0.80
b <sub>1</sub>	0.70		0.80
c	0.45		0.70
c <sub>1</sub>	0.45		0.70
D	6.35		6.80
D <sub>1</sub>	5.10		5.50
E	5.30		6.30
e	2.25	2.30	2.35
L	7.00		9.20
H	0.35		0.45
W1	0.30		0.50
W2	0.20		0.40

[S/L]



## TO-251S 封装机械尺寸 TO-251S (IPAK) MECHANICAL DATA

单位:毫米/UNIT: mm

符号/SYMBOL	最小值/min	典型值/nom	最大值/max
A	2.20		2.40
b	0.50		0.85
C	0.45	0.50	0.60
D	6.50		6.70
D1	5.10		5.50
E	5.9		6.20
e	2.18	2.29	2.38
L	11.00		12.40
L1	4.8		5.3
L2	3.5		4.2

