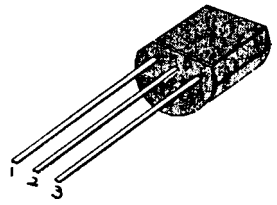
NPN SILICON POWER TRANSISTOR MJE13001

● **FEATURES**: ■HIGH VOLTAGE CAPABILITY ■HIGH SWITCHING SPEED ■WIDE SOA

● **APPLICATIONS:** ■ELECTRONIC BALLASTS FOR FLUORESCENT LIGHTING
■COMPACT FLUORESCENT LAMP

● MAXIMUM RATINGS（Tc=25°C） TO-92

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	500	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	9	V
Collector Current	I_C	0.5	A
Total Power Dissipation	P_C	7	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-65-150	°C



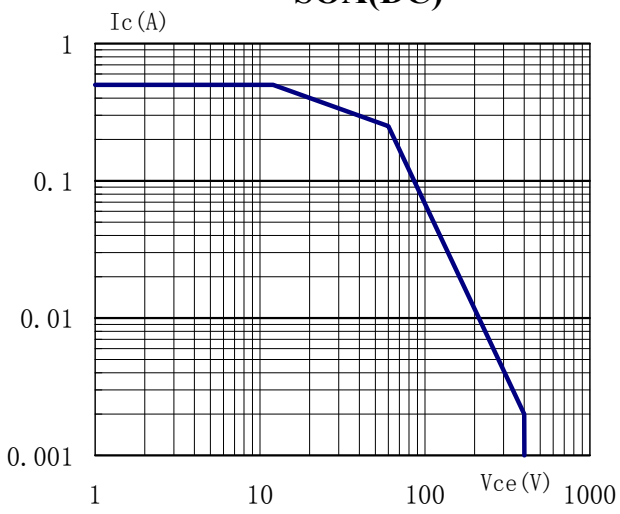
TO-92

1-E、2-C、3-B

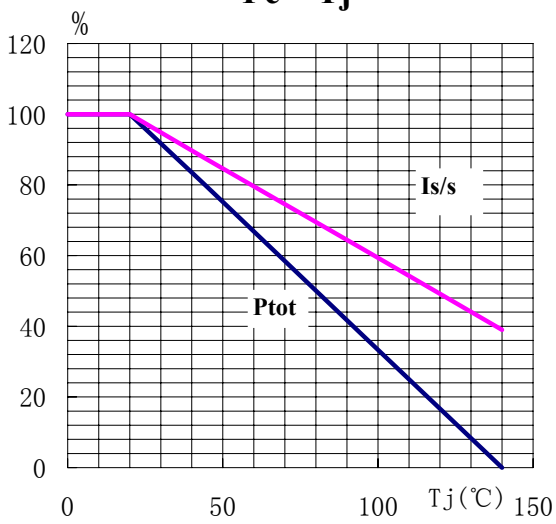
● ELECTRICAL CHARACTERISTICS（Tc=25°C）

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cutoff Current	I_{CBO}	V_{CB}=500V		100	μA
Collector Cutoff Current	I_{CEO}	V_{CE}=400V,I_B=0		250	μA
Collector-Emitter Sustaining Voltage	V_{CEO}	I_C=10mA,I_B=0	400		V
Base-Emitter Sustaining Voltage	V_{EBO}	I_E=1mA,I_C=0	9		V
Collector-Emitter Saturation Voltage	Vces	I_C=0.05A,I_B=0.01A		0.5	V
		I_C=0.1A,I_B=0.02A		1.0	
		I_C=0.3A,I_B=0.1A		3.0	
Base-Emitter Saturation Voltage	Vbes	I_C=0.1A,I_B=0.02A		1.5	V
DC Current Gain	h_{FE}	V_{CE}=5V,I_C=1mA	8		
		V_{CE}=5V,I_C=20mA	10	40	
		V_{CE}=5V,I_C=200mA	8		
Storage Time	t_S	V_{CC}=250V, I_C=5I_B; I_{B1}=I_{B2}=0.04A		2.0	μS
Fall Time	t_f			0.8	

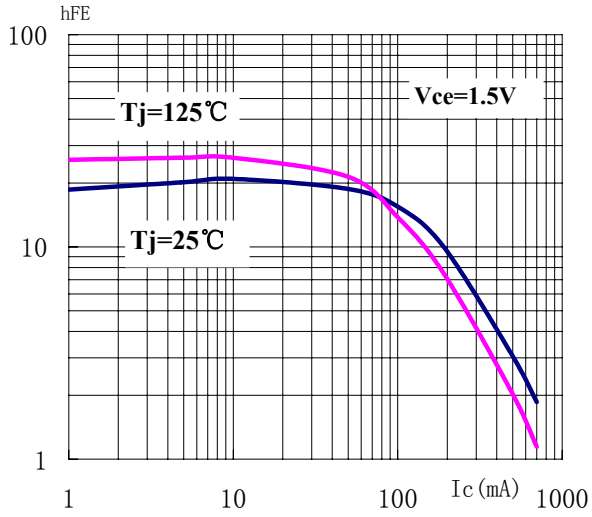
SOA(DC)



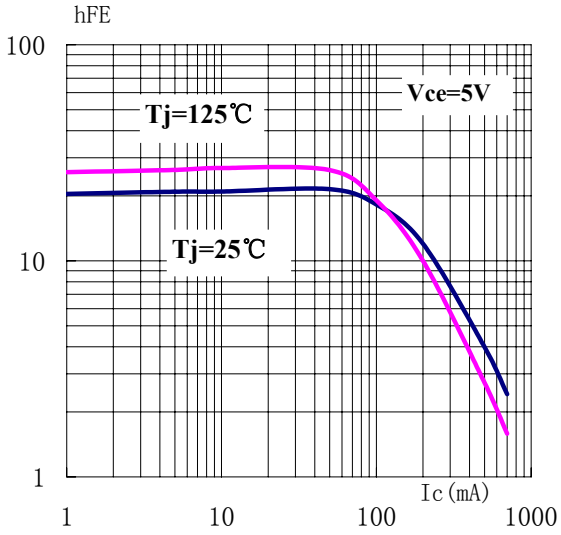
Pc∝Tj



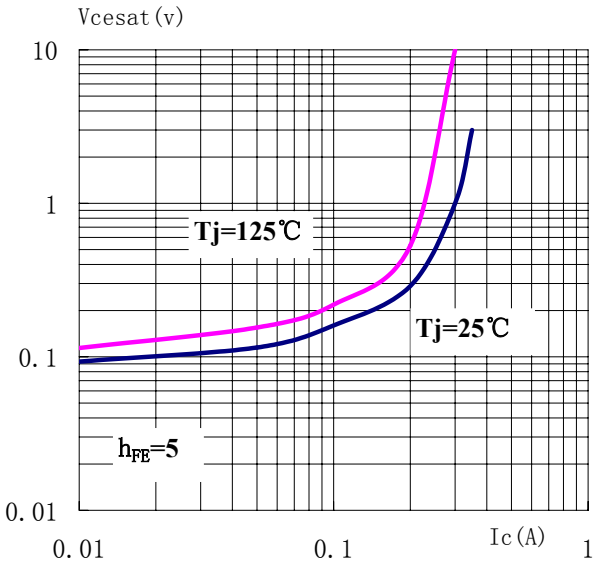
hFE-Ic



hFE-Ic



Vcesat-Ic



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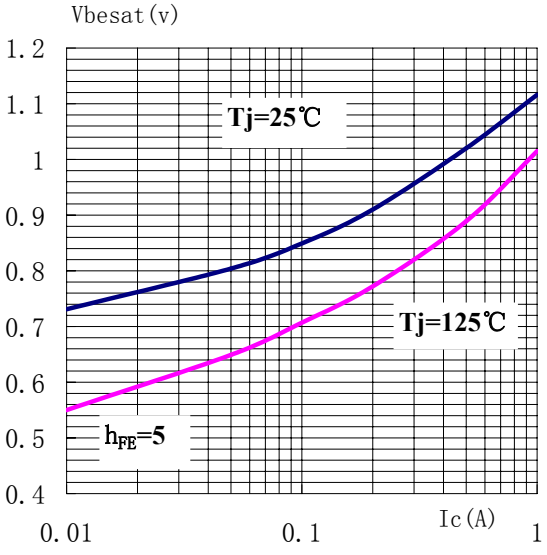

TO-92 MECHANICAL DATA

UNIT：mm

SYMBOL	min	nom	max
A	4.3		5.3
b	0.3		
c	0.3		
ϕ D D	4.3		5.2
d	1.0		1.7
E	3.2		4.2
e		2.54	
e1		1.27	
L	12.7		
L1			2.0