Suntac ELECTRONIC CORP

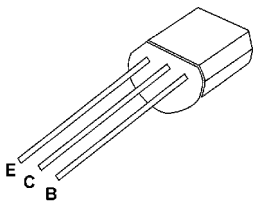
STC13002
NPN POWER TRANSISTORS

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

● **APPLICATION:** ■ADAPTOR CHARGER ■ELECTRONIC BALLAST

● **Absolute Maximum Ratings（Tc=25°C）** **TO-92**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	700	V
Collector-Emitter Voltage	V_{CEO}	480	V
Emitter- Base Voltage	V_{EBO}	9	V
Collector Current	I_C	1.0	A
Total Power Dissipation	P_C	11	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-65-150	°C

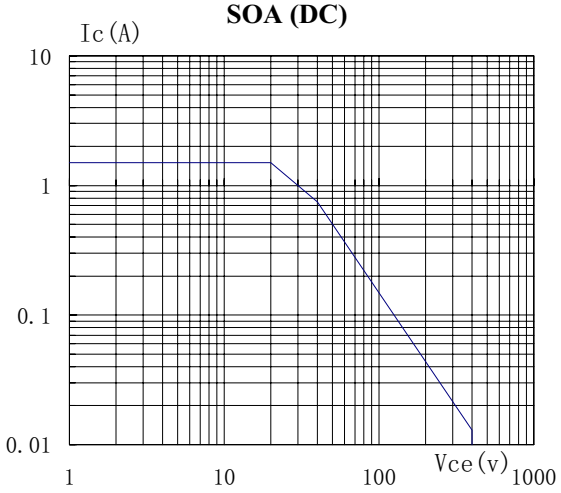


TO-92

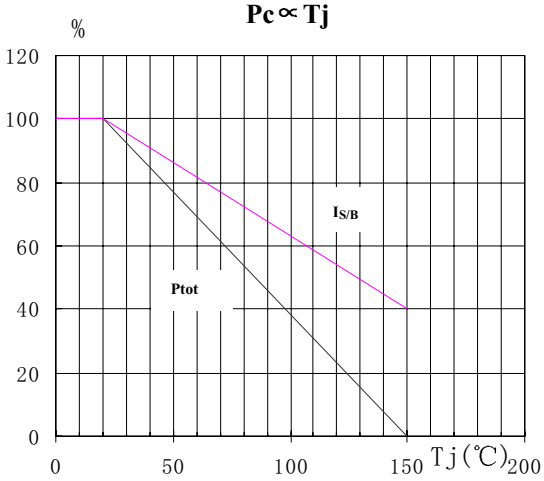
● **Electronic Characteristics（Tc=25°C）**

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector-Base Cutoff Current	I_{CBO}	V_{CB}=700V		100	μA
Collector-Emitter Cutoff Current	I_{CEO}	V_{CE}=480V,I_B=0		250	μA
Collector-Emitter Voltage	V_{CEO}	I_C=10mA,I_B=0	480		V
Emitter- Base Voltage	V_{EBO}	I_E=1mA,I_C=0	9		V
Collector-Emitter Saturation Voltage	Vces	I_C=0.2A,I_B=0.04A		0.5	V
		I_C=0.5A,I_B=0.1A		1.0	
		I_C=0.8A,I_B=0.2A		3.0	
Base-Emitter Saturation Voltage	Vbes	I_C=0.2A,I_B=0.04A		1.2	V
DC Current Gain	h_{FE}	V_{CE}=5V,I_C=5mA	8		
		V_{CE}=5V,I_C=0.2A	10	40	
		V_{CE}=5V,I_C=0.8A	8		
Storage Time	t_S	V_{CC}=250V, I_C=5I_B I_{B1}= -I_{B2}=0.1A		2.5	μS
Falling Time	tf			0.8	

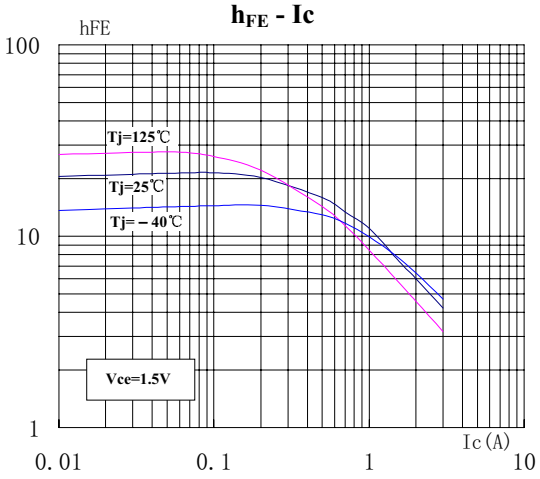
SOA (DC)



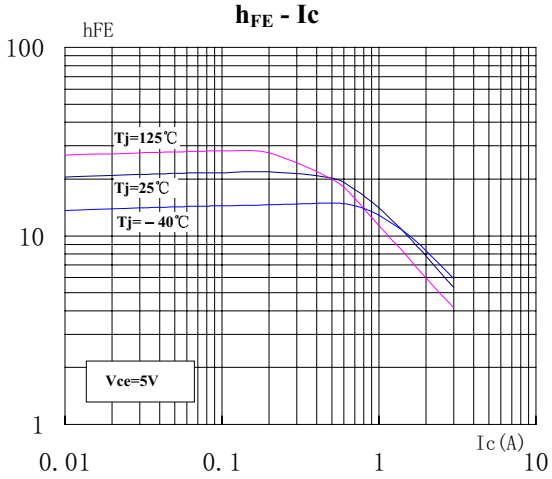
Pc∝Tj



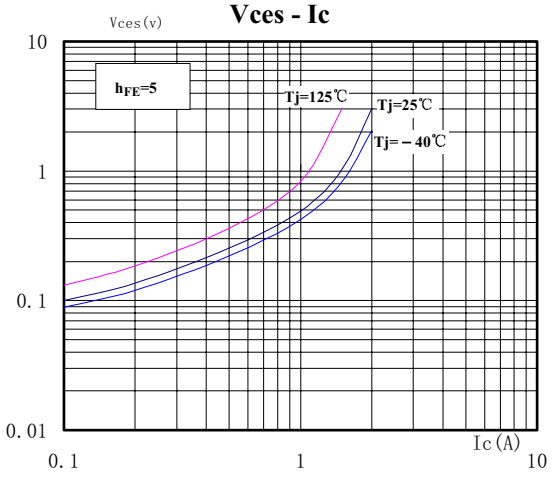
h_{FE} - Ic



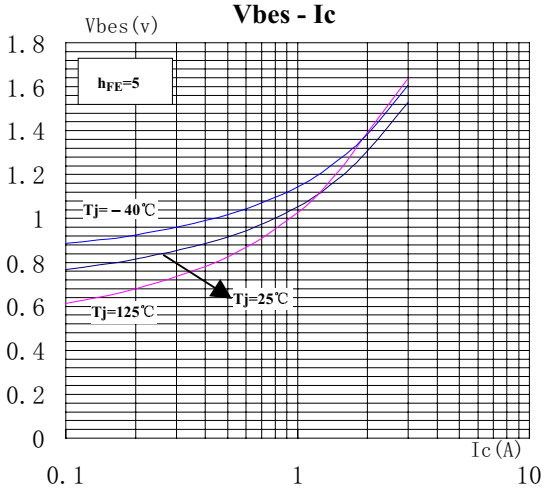
h_{FE} - Ic



Vces - Ic



Vbes - Ic



TO-92 MECHANICAL DATA

UNIT：mm

SYMBOL	min	nom	max
A	4.3		5.3
b	0.3		
c	0.3		
ϕD 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