HK102H

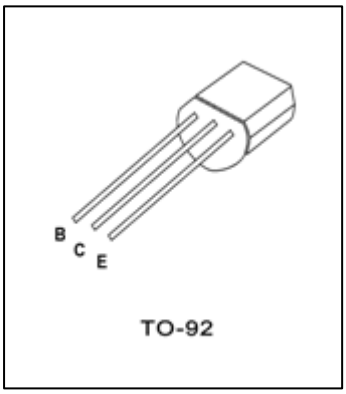
HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

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

● **APPLICATION:** ■FLUORESCENT LAMP ■ELECTRONIC BALLAST

Absolute Maximum Ratings

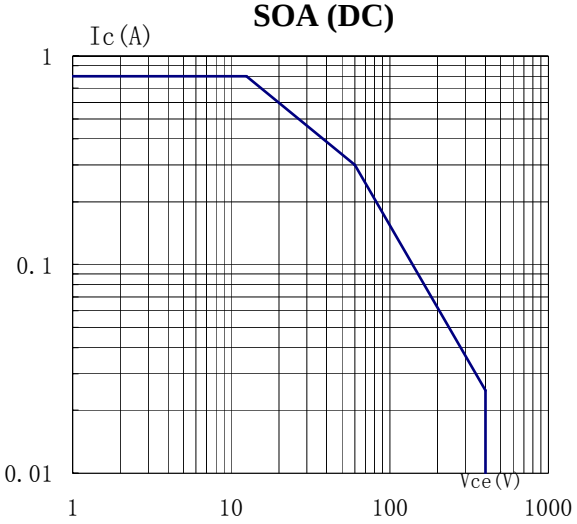
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	700	V
Collector-Emitter Voltage	V_{CEO}	480	V
Emitter- Base Voltage	V_{EBO}	9	V
Collector Current	I_C	0.8	A
Total Power Dissipation	P_C	10	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-65-150	°C



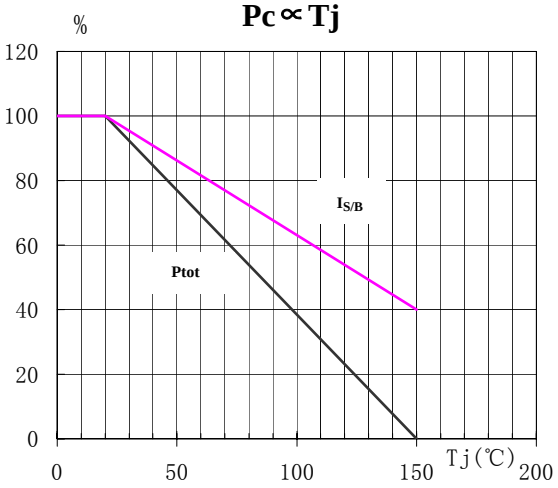
Electronic Characteristics (Tj=25°C Unless OtherWise Specified)

Parameter	Symbol	Test Conditons	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=1mA, I_E=0	700		V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C =10mA, I_B=0	480		V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=1mA, I_C=0	9		V
Collector-Base Cutoff Current	I_{CBO}	V_{CB}=600V,I_E=0		10	μA
Collector-Emitter Cutoff Current	I_{CEO}	V_{CE}=400V, I_B=0		20	μA
Emitter –Base Cutoff Current	I_{EBO}	V_{EB}=9V, I_C=0		20	μA
DC Current Gain	$h_{FE(1)}$	V_{CE} =10V, I_C =100mA	15	30	
DC Current Gain	$h_{FE(2)}$	V_{CE} =5V, I_C =1mA	9		
Collector-Emitter Saturation Voltage	V_{CESAT}	I_C =500mA, I_B =100mA		0.7	V
Base-Emitter Saturation Voltage	V_{BESAT}	I_C =500mA, I_B =100mA		1.2	V
Storage Time	t_s	UI9600 I_C =0.25A	1.0	3.0	μs
Falling Time	t_f			0.8	μs

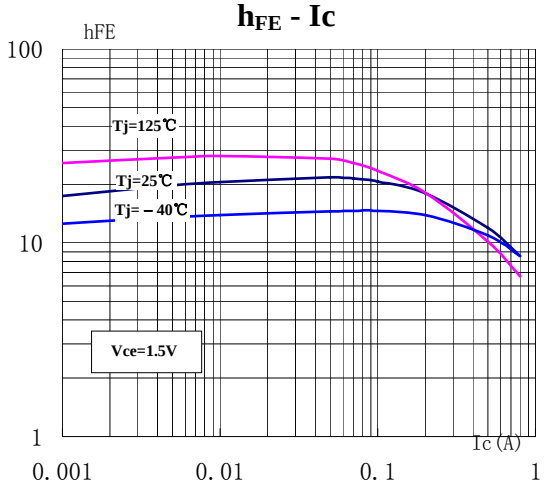
SOA (DC)



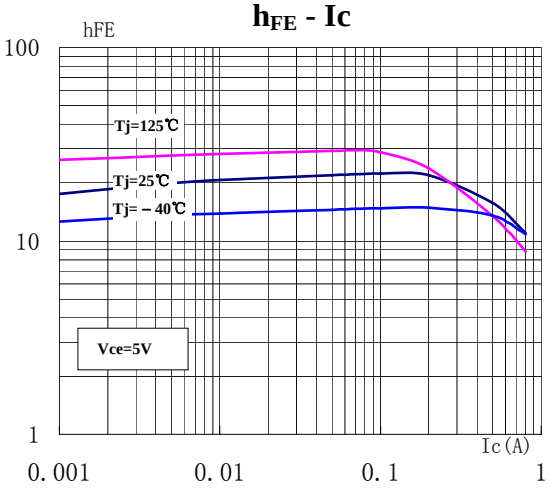
Pc∝Tj



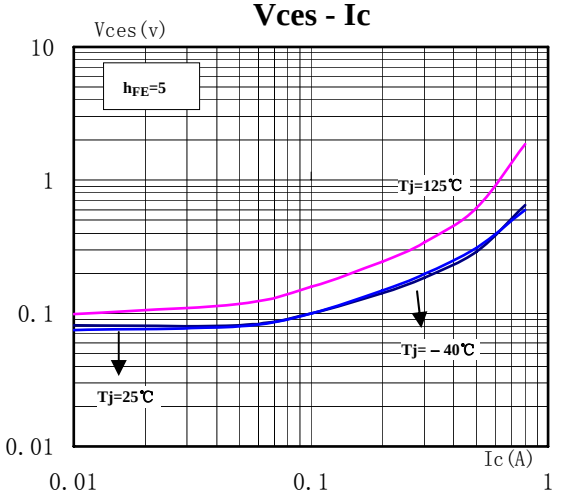
h_{FE} - Ic



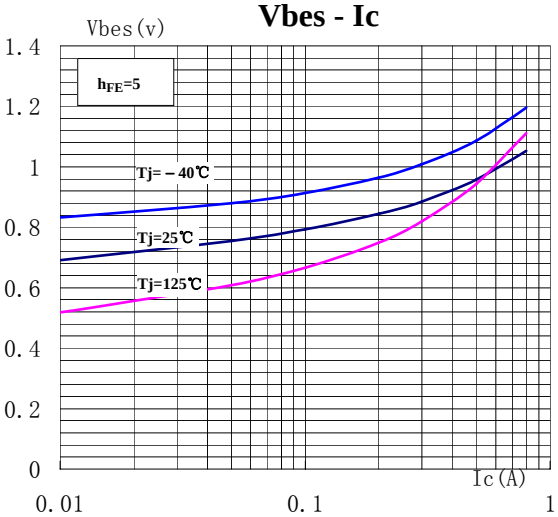
h_{FE} - Ic



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