



HK13001

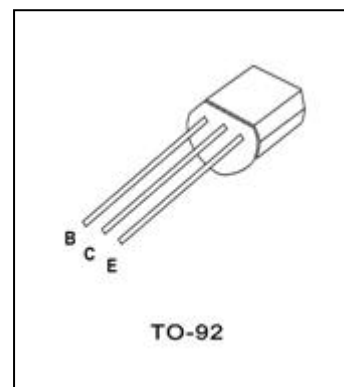
HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

● **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_{CB0}	600	V
Collector-Emitter Voltage	V_{CE0}	400	V
Emitter- Base Voltage	V_{EB0}	9	V
Collector Current	I_C	0.3	A
Total Power Dissipation	P_C	7	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-65-150	°C



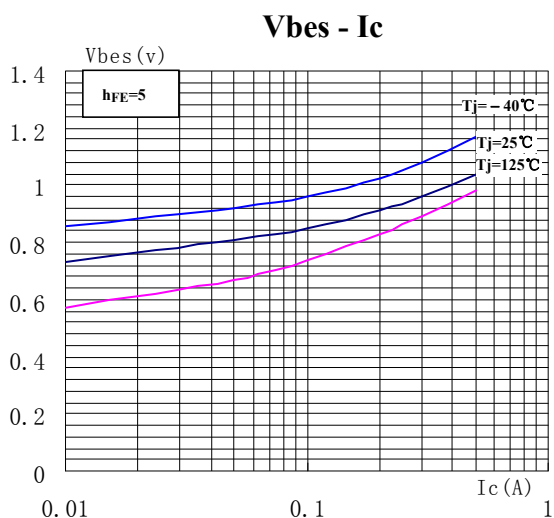
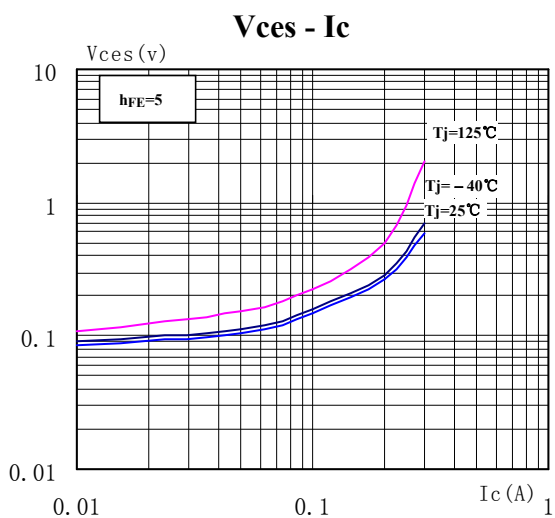
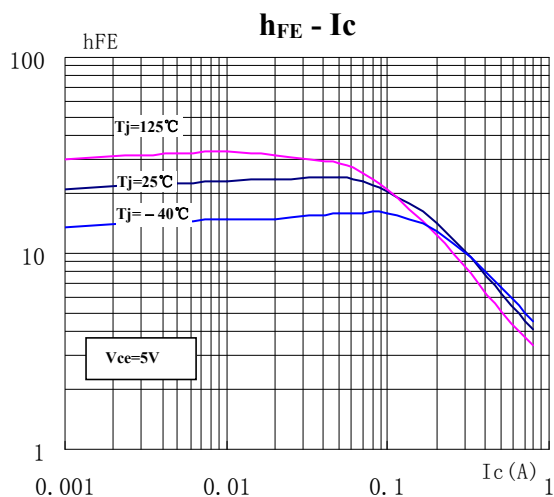
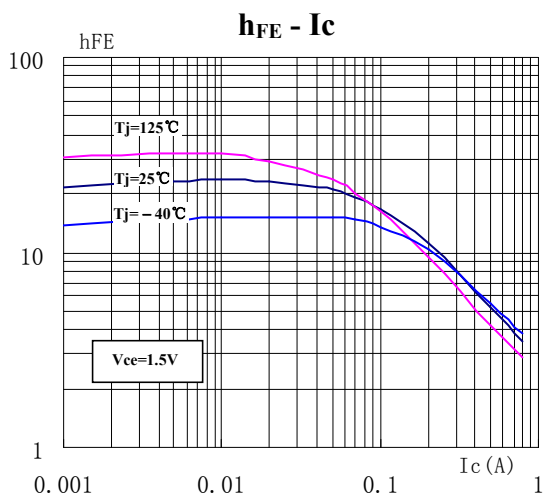
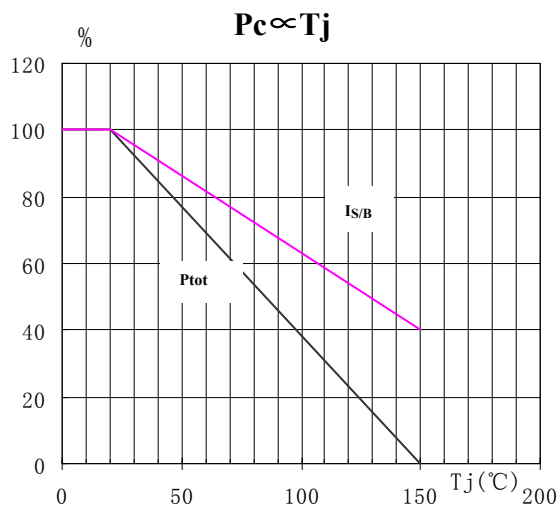
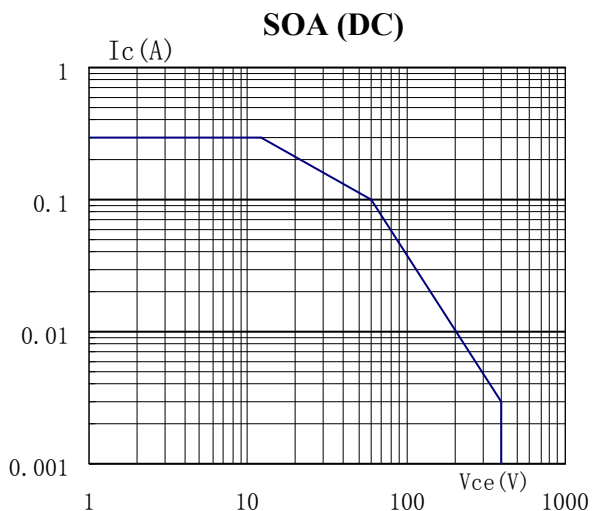
Electronic Characteristics (T_j=25°C Unless OtherWise Specified)

Parameter	Symbol	Test Conditons	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=1mA, I_E=0$	600		V
Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C=1mA, I_B=0$	400		V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E=1mA, I_C=0$	9		V
Collector-Base Cutoff Current	I_{CB0}	$V_{CB}=600V, I_E=0$		10	μA
Collector-Emitter Cutoff Current	I_{CE0}	$V_{CE}=400V, I_B=0$		20	μA
Emitter –Base Cutoff Current	I_{EB0}	$V_{EB}=9V, I_C=0$		20	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=20V, I_C=20mA$	15	30	
DC Current Gain	$h_{FE(2)}$	$V_{CE}=5V, I_C=1mA$	9		
Collector-Emitter Saturation Voltage	V_{CESAT}	$I_C=200mA, I_B=50mA$		0.8	V
Base-Emitter Saturation Voltage	V_{BESAT}	$I_C=200mA, I_B=50mA$		1.4	V
Storage Time	t_s	UI9600 $I_C=0.1A$	1.0	3.0	μs
Falling Time	t_f				1.0



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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		
ϕD	4.3		5.2
D			
d	1.0		1.7
E	3.2		4.2
e		2.54	
e1		1.27	
L	12.7		
L1			2.0

