

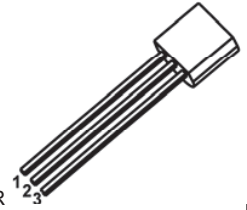
TO-92 PNP Transistor

FEATURES

- Switching and Amplification in High Voltage
- Applications such as Telephony
- Low Current
- High Voltage

TO - 92

1. EMITTER
2. BASE
3. COLLECTOR



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-160	V
V _{CEO}	Collector-Emitter Voltage	-150	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-0.6	A
P _C	Collector Power Dissipation	625	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	200	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

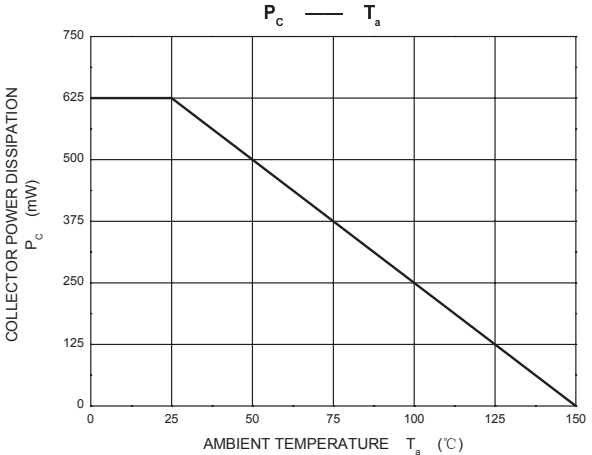
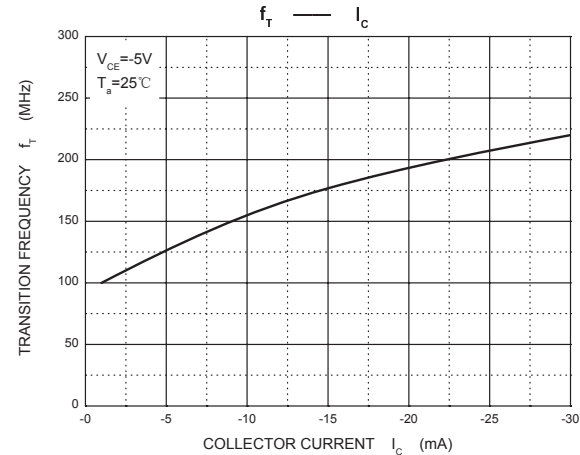
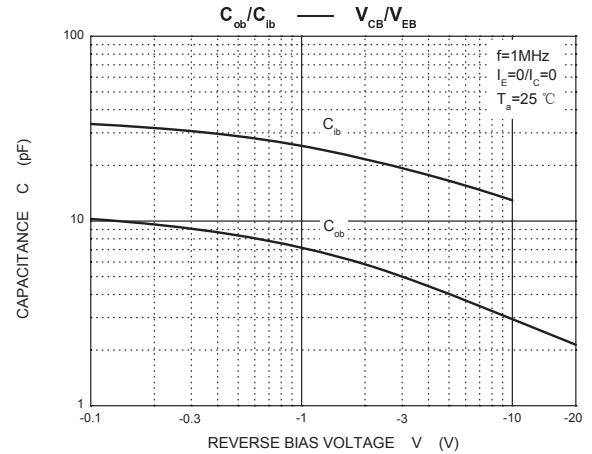
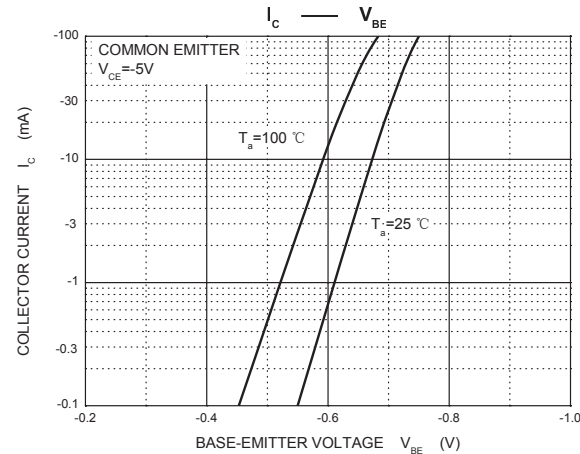
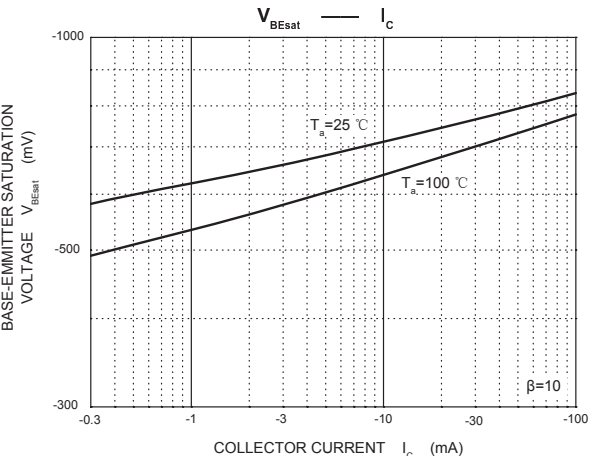
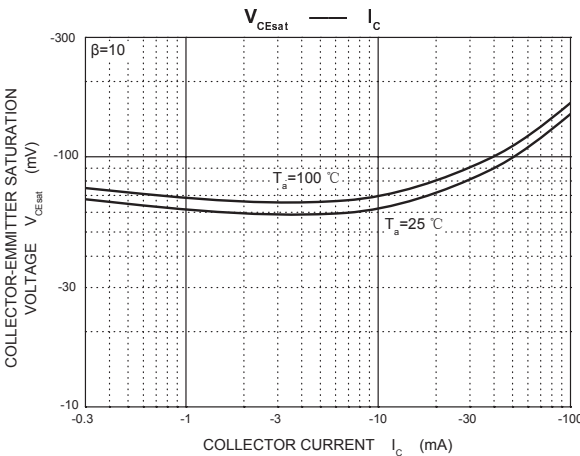
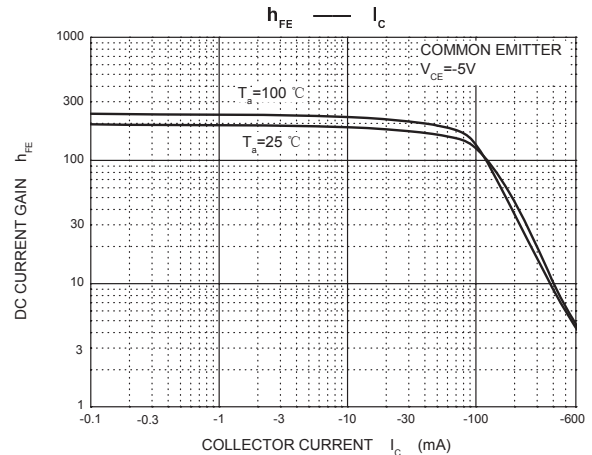
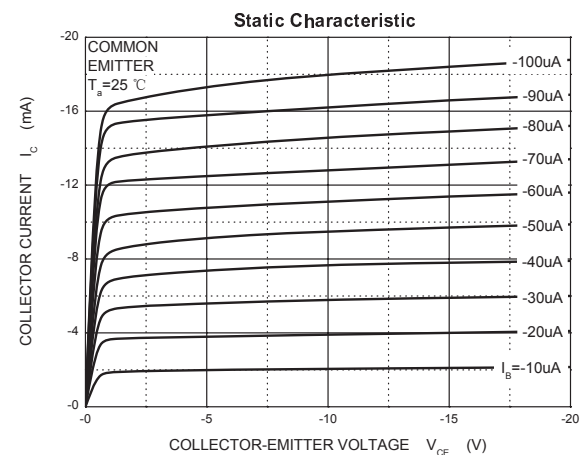
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -0.1mA, I _E =0	-160			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	-150			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-0.01mA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-120V, I _E =0			-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-3V, I _C =0			-50	nA
DC current gain	h _{FE(1)}	V _{CE} =5V, I _C =1mA	80			
	h _{FE(2)}	V _{CE} =5V, I _C =10mA	60		300	
	h _{FE(3)}	V _{CE} =5V, I _C =50mA	50			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-50mA, I _B =-5mA			-0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-50mA, I _B =-5mA			-1	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA, f =30MHz	100		300	MHz

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

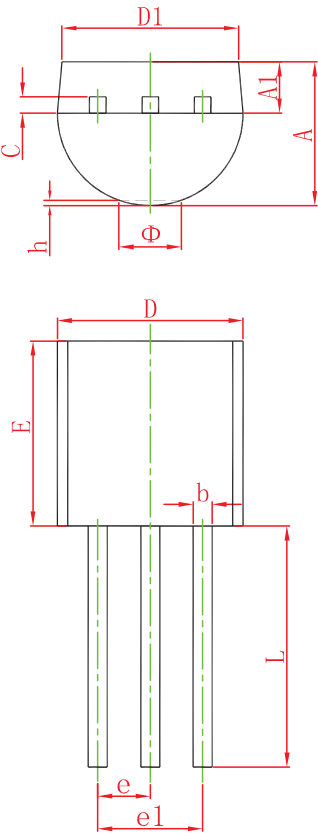
CLASSIFICATION OF h_{FE(2)}

RANK		A	B	C
RANGE	60-300	100-150	150-200	200-300

Typical Characteristics



TO-92 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP.		0.050 TYP.	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250

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