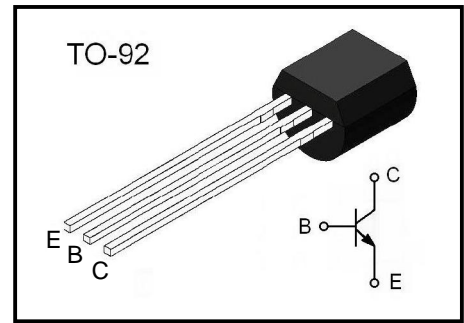


Plastic-Encapsulate Transistors

TRANSISTOR (NPN)

FEATURES

‡High Breakdown Voltage



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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	400	V
V _{CEO}	Collector-Emitter Voltage	400	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	0.2	A
I _{CM}	Collector Current -Pulsed	0.3	A
P _C	Collector Power Dissipation	625	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	200	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

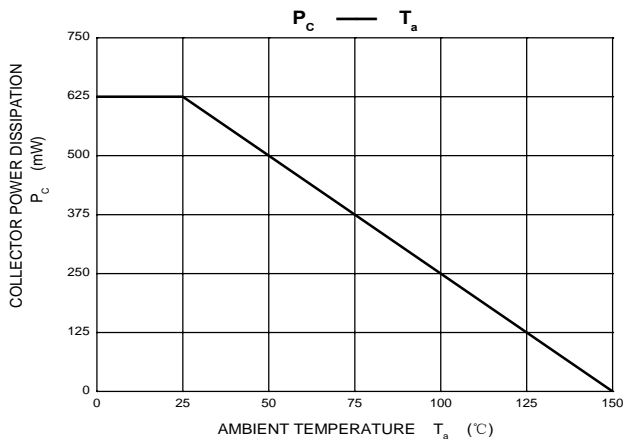
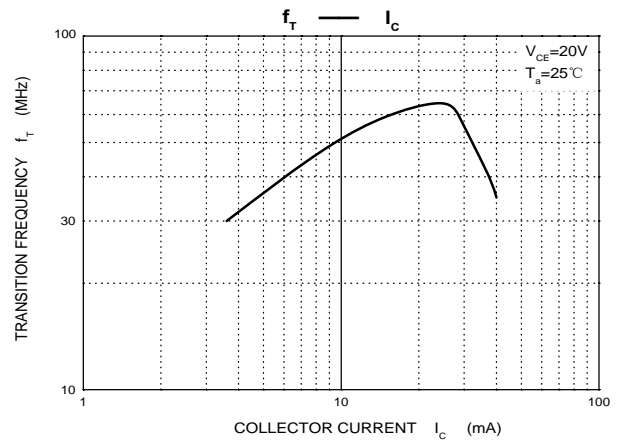
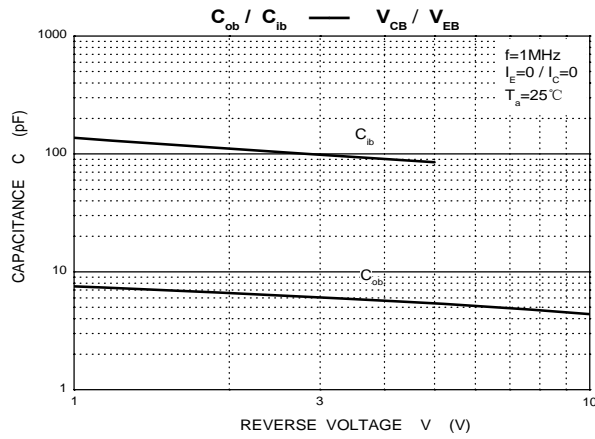
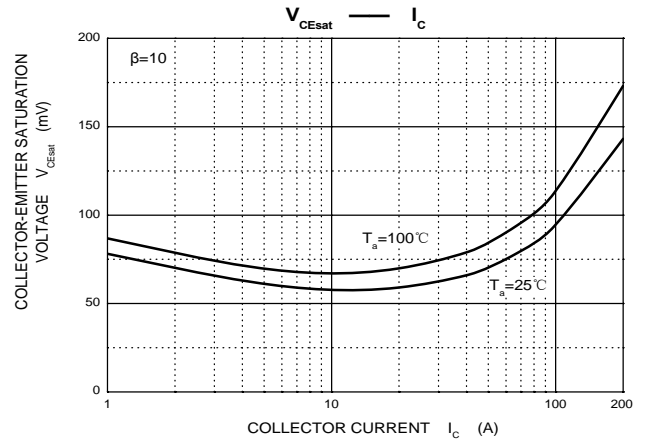
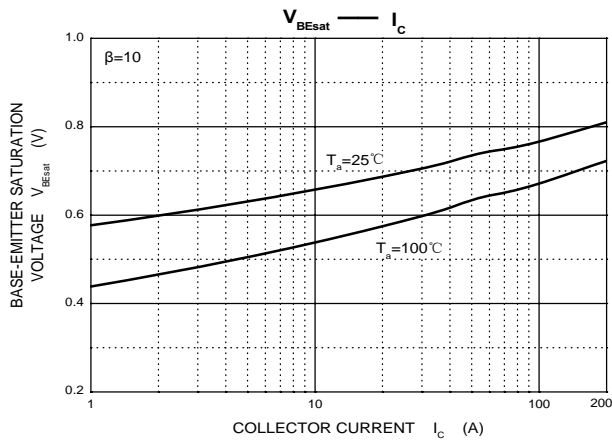
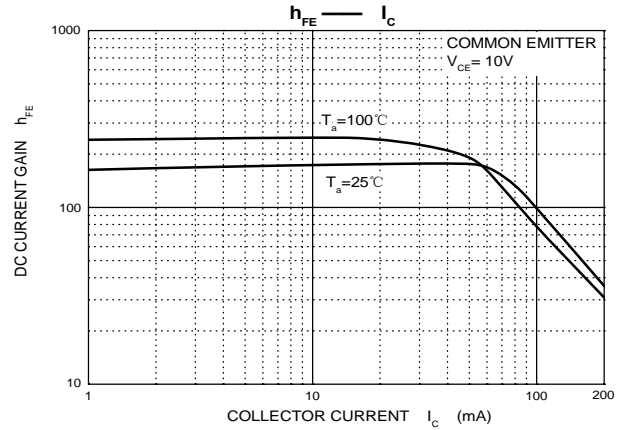
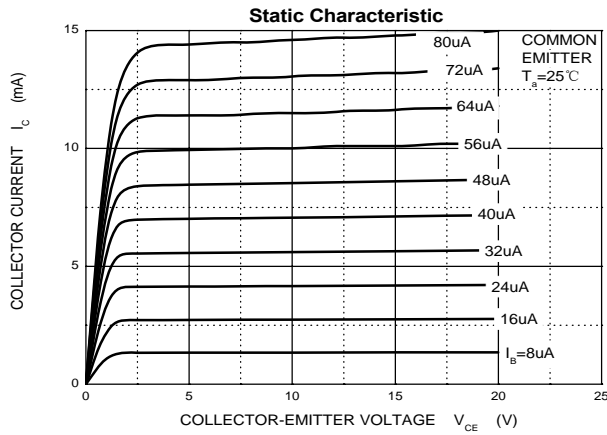
T_a=25°C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	400			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	400			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			V
Collector cut-off current	I _{CB0}	V _{CB} =400V, I _E =0			0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} =400V, I _B =0			5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =10V, I _C =10mA	80		300	
	h _{FE(2)}	V _{CE} =10V, I _C =1mA	70			
	h _{FE(3)}	V _{CE} =10V, I _C =100mA	40			
	h _{FE(4)}	V _{CE} =10V, I _C =50mA	80			
Collector-emitter saturation voltage	V _{CE(sat)(1)}	I _C =10mA, I _B =1mA			0.2	V
	V _{CE(sat)(2)}	I _C =50mA, I _B =5mA			0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =10mA, I _B =1mA			0.75	V
Transition frequency	f _T	V _{CE} =20V, I _C =10mA, f=30MHz	50			MHz

CLASSIFICATION OF h_{FE}

RANK	A44-A	A44-B	A44-C
RANGE	80-100	100-200	200-300

Typical Characteristics



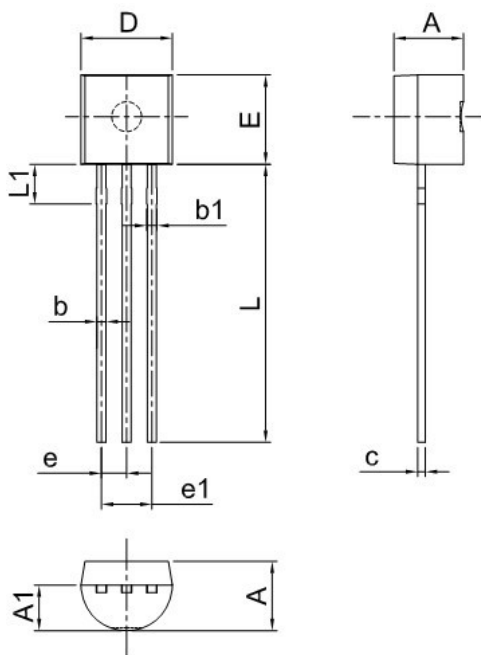
Ordering information

Package	Packing Description	Base Quantity
TO-92	Bulk	1000pcs/Bag
	Tape	2000pcs/Box

Package Dimensions

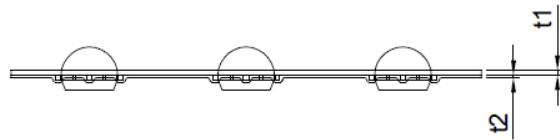
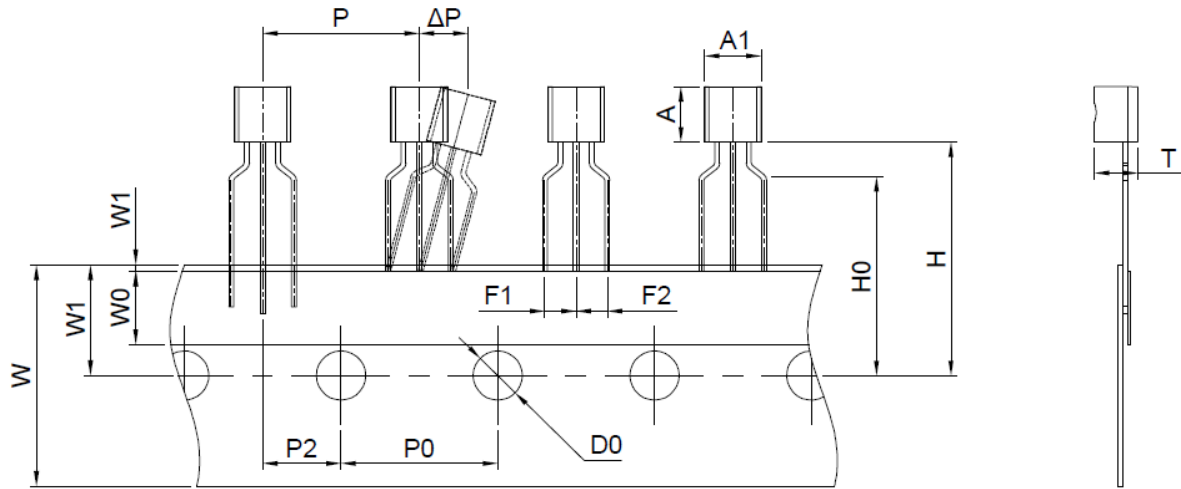
TO-92

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.70	0.130	0.146
A1	2.30	2.70	0.091	0.106
b	0.40	0.50	0.016	0.020
b1	0.50	0.70	0.020	0.028
c	0.35	0.45	0.014	0.018
D	4.45	4.70	0.175	0.185
E	4.40	4.65	0.173	0.183
e	1.17	1.37	0.046	0.054
e1	2.34	2.64	0.092	0.104
L	13.50	14.50	0.531	0.571
L1	1.80	2.20	0.071	0.087

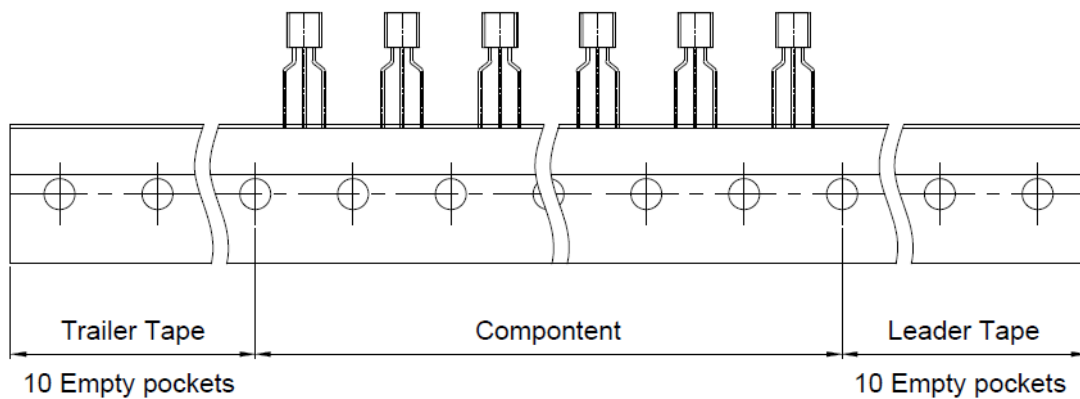


Taping Dimensions

TO-92



Dimensions are in millimeter								
A	A1	T	P	P0	P2	F1	F2	W
4.6	4.6	3.5	12.7	12.7	6.35	2.54	2.54	18.0
W0	W1	W2	H	H0	D0	t1	T2	ΔP
6.0	9.0	1.0Max	19.0	18.0	4.0	0.4	0.2	0



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