

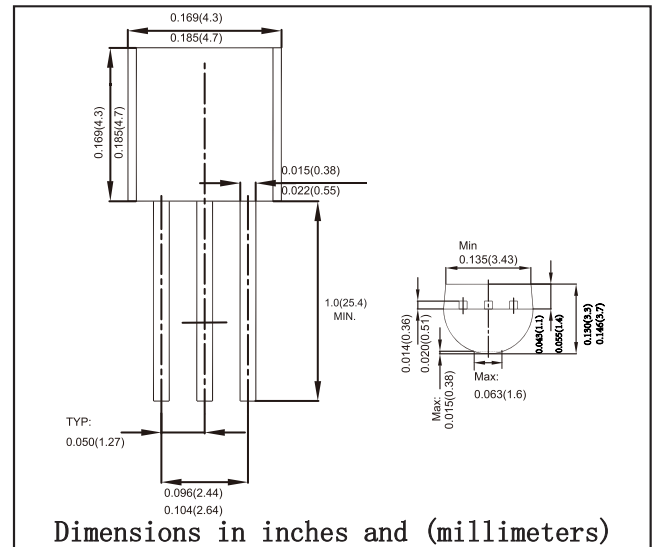
TO-92 Plastic-Encapsulate Transistors

FEATURES

- TRANSISTOR (NPN)
- Excellent hFE linearity

MECHANICAL DATA

- Case style:TO-92 molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector Base Voltage	60	V
V _{CEO}	Collector Emitter Voltage	50	V
V _{EB0}	Emitter Base Voltage	5	V
I _C	Collector Current-Continuous	150	mA
P _C	Collector Power Dissipation	400	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55 ~ +150	°C
R _{θJA}	Thermal Resistance from Junction to Ambient	312	°C/W

ELECTRICAL CHARACTERISTICS Ta =25°C unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _C = 100μA, I _E = 0	60			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C = 0.1mA, I _B = 0	50			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E = 100μA, I _C = 0	5			V
I _{CBO}	Collector cut-off current	V _{CB} = 60V, I _E = 0			100	nA
I _{CEO}	Collector cut-off current	V _{CE} = 30V, I _B = 0			100	nA
I _{EBO}	Emitter cut-off current	V _{EB} = 5V, I _C = 0			100	nA
h _{FE(1)}	DC current gain	V _{CE} = 5V, I _C = 1mA	70		700	
h _{FE(2)}		V _{CE} = 6V, I _C = 2mA	70			
V _{CE(sat)}	Collector-emitter saturation voltage	I _C = 100mA, I _B = 10mA			0.25	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C = 100mA, I _B = 10mA			1	V
f _T	Transition frequency	V _{CE} =10V, I _C =1mA, f=30MHz	80			MHz
C _{ob}	Collector Output Capacitance	V _{CB} = 10V, I _E = 0, f = 1MHz			3.5	pF
NF	Noise Figure	V _{CE} = 6V, I _C = 0.1mA, f = 1KHz, R _G = 10K			10	dB

Classification OF h_{FE(1)}

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

