

TO-92 Plastic-Encapsulate Transistors

2N5551H-98

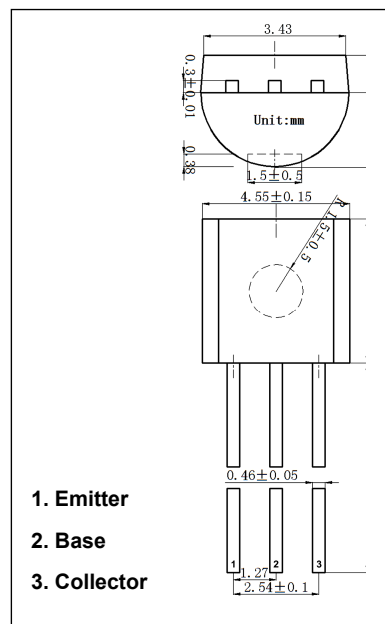
NPN Transistors

Features

- General Purpose Switching Application

Maximum Ratings (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector Base Voltage	180	V
V _{CEO}	Collector Emitter Voltage	160	V
V _{EBO}	Emitter Base Voltage	6	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 to +150	°C



Electrical Characteristics (T_a=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	180			V
V _{(BR)CEO} *	Collector-emitter breakdown voltage	I _C = 1mA, I _B = 0	160			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E = 10μA, I _C = 0	6			V
I _{CBO}	Collector cut-off current	V _{CB} = 120V, I _E = 0			50	nA
I _{EBO}	Emitter cut-off current	V _{EB} = 4V, I _C = 0			50	nA
h _{FE(1)}	DC current gain	V _{CE} = 5V, I _C = 1mA	80			
h _{FE(2)}		V _{CE} = 5V, I _C = 10mA	100		300	
h _{FE(3)}		V _{CE} = 5V, I _C = 50mA	50			
V _{CE(sat)}	Collector-emitter saturation voltage	I _C = 10mA, I _B = 1mA			0.15	V
V _{CE(sat)}		I _C = 50mA, I _B = 5mA			0.2	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C = 10mA, I _B = 1mA			1	V
V _{BE(sat)}		I _C = 50mA, I _B = 5mA			1	V
f _T	Transition frequency	V _{CE} =10V, I _C =10mA, f = 100MHz	100		300	MHz
C _{ob}	Collector output capacitance	V _{CB} = 10V, I _E = 0, f = 1MHz			6	pF
C _{ib}	Emitter input capacitance	V _{BE} = 0.5V, I _C = 0, f = 1MHz			20	pF

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

Classification OF h_{FE(2)}

Rank	A	B	C
Range	100-150	150-200	200-300

Typical Characteristics

