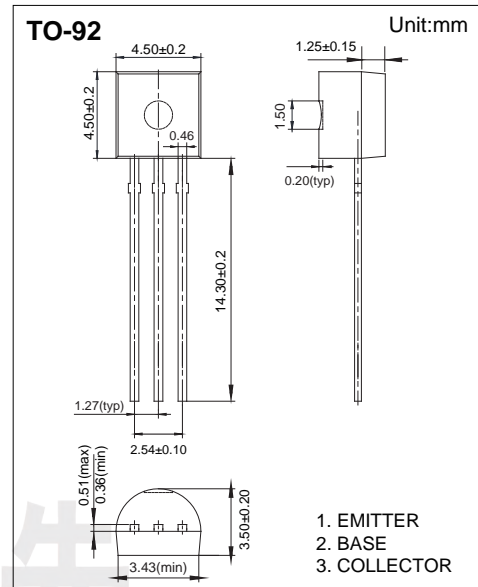


NPN Transistors

A44

■ Features

- Collector current: $I_c=0.2A$
- High Breakdown Voltage
- Complementary to A94



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	400	V
Collector - Emitter Voltage	V_{CEO}	400	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	0.2	mA
Collector Current - Pulsed	I_{CM}	0.3	
Collector Power Dissipation	P_C	625	mW
Thermal Resistance, junction to Ambient	$R_{\theta JA}$	200	$^\circ C/mW$
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to 150	

Transistor

NPN Transistors

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V _{CB0}	I _C = 100 μA, I _E =0	400			V
Collector- emitter breakdown voltage	V _{CEO}	I _C = 1 mA, I _B =0	400			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C =0	5			
Collector cut-off current	I _{CBO}	V _{CB} = 200 V, I _E =0			0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} =400V, I _B =0			5	
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C =0			0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =10 mA, I _B = 1mA			0.2	V
		I _C =50 mA, I _B = 5mA			0.3	
Base - emitter saturation voltage	V _{BE(sat)}	I _C =10 mA, I _B = 1mA			0.75	
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			
Transition frequency	f _T	V _{CE} = 20V, I _C = 10mA, f=30MHz	50			MHz

■ Classification of h_{FE(1)}

Rank	A	B	C
Range	80-100	100-200	200-300

Transistor

NPN Transistors

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Typical Characteristics

