

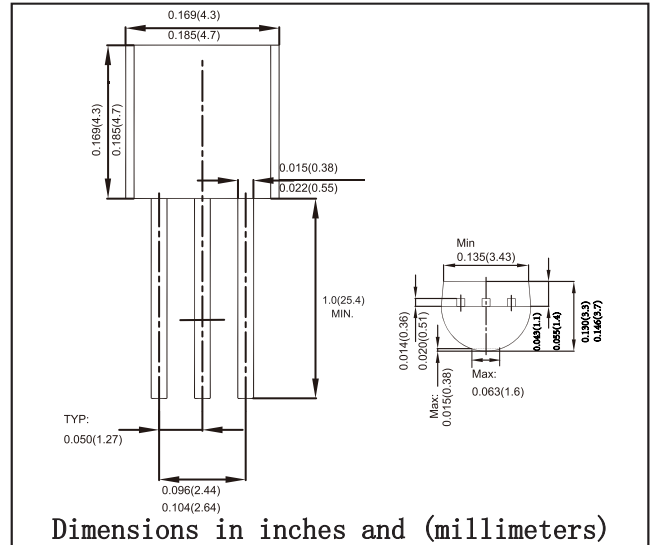
TO-92 Plastic-Encapsulate Transistors

**FEATURES**

- Switching and amplification in high voltage
- Applications such as telephony
- Low current
- High voltage
- NPN Transistors

**MECHANICAL DATA**

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



**MAXIMUM RATINGS AND CHARACTERISTICS**

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	60	V
Collector - Emitter Voltage	V <sub>CEO</sub>	40	V
Emitter - Base Voltage	V <sub>EB0</sub>	6	V
Collector Current - Continuous	I <sub>c</sub>	0.2	A
Collector Power Dissipation	P <sub>c</sub>	0.625	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	- 55 to 150	°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = 100μA, I <sub>E</sub> =0	60			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>c</sub> = 1 mA , I <sub>B</sub> =0	40			V
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> =10uA, I <sub>C</sub> =0	6			V
Collector cut-off current	I <sub>cB0</sub>	V <sub>CB</sub> = 6 0 V , I <sub>E</sub> =0			0.1	μ A
Collector cut-off current	I <sub>cEO</sub>	V <sub>CE</sub> = 4 0 V , I <sub>B</sub> =0			0.1	μ A
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = 5 V , I <sub>C</sub> =0			0.1	μ A
DC current gain	H <sub>FE</sub>	V <sub>CE</sub> = 1 V , I <sub>C</sub> = 10mA	100		300	
		V <sub>CE</sub> = 1 V , I <sub>C</sub> = 50mA	60			
		V <sub>CE</sub> = 1 V , I <sub>C</sub> = 100mA	30			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =50 mA, I <sub>B</sub> = 5 mA			0.3	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 5 0 mA , I <sub>B</sub> = 5mA			0.95	V
Delay time	t <sub>d</sub>	V <sub>CC</sub> =3.0V, V <sub>BE</sub> =-0.5V			35	ns
Rise time	t <sub>r</sub>	I <sub>C</sub> =10mA, I <sub>B1</sub> =-I <sub>B2</sub> =1.0mA			35	
Storage time	t <sub>s</sub>	V <sub>CC</sub> =3.0V, I <sub>C</sub> =10mA			200	ns
Fall time	t <sub>f</sub>	I <sub>B1</sub> =-I <sub>B2</sub> =1.0mA			50	
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 20V, I <sub>C</sub> = 10mA, f=100MHz	300			MHz

## RATINGS AND CHARACTERISTIC CURVES

