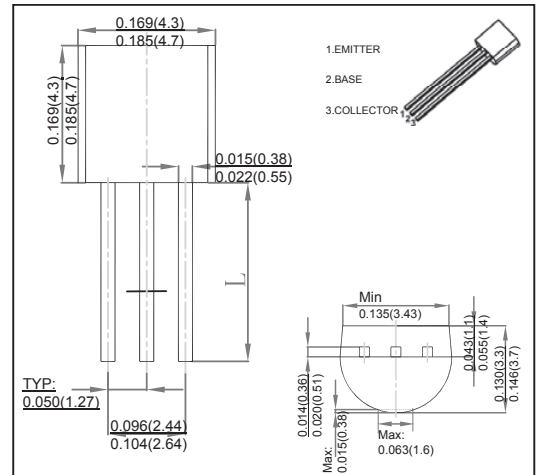


TO-92 Plastic-Encapsulate Transistors
FEATURES

- 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 _{CB0}	60	V
Collector-emitter voltage	V _{CEO}	30	V
Emitter-base voltage	V _{EB0}	5	V
Collector current-continuous	I _C	0.6	A
Collector Power Dissipation	P _C	625	mW
Thermal Resistance From Junction To Ambient	R _{θJA}	200	°C/W
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 0.01mA, I _E = 0	60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 10 mA, I _B = 0	30			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 10 μA, I _C = 0	5			V
Collector cutoff current	I _{CBO}	V _{CB} = 500 V, I _E = 0			0.01	μA
Emitter cutoff current	I _{EBO}	V _{EB} = 4.0 V, I _C = 0			0.1	μA
DC current gain	h _{FE}	I _C = 1.0mA, V _{CE} = 10V	100		300	
		I _C = 0.1mA, V _{CE} = 10 V	35			
		I _C = 500mA, V _{CE} = 10V	30			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 500mA, I _B = 50 mA			1.0	V
Base-emitter saturation voltage *	V _{BE(sat)}	I _C = 500mA, I _B = 50mA			2.0	V
		I _C = 50 mA, I _B = 5 mA			1.0	
Transistor frequency	f _T	V _{CE} = 20V, I _C = 20mA, f = 100MHz	250			MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 100MHz			8	pF
Delay time	T _d	V _{CC} = 30V, V _{BE} = -0.5V			10	ns
Rise time	T _r	I _C = 150mA, I _{B1} = 15mA			25	ns
Storage time	T _s	V _{CC} = 30V, I _C = 150mA			225	ns
Fall time	T _f	I _{B1} = I _{B2} = 15mA			60	ns

* Pulse Test: Pulse Width ≤ 300 us, Duty Cycle ≤ 2.0%.