

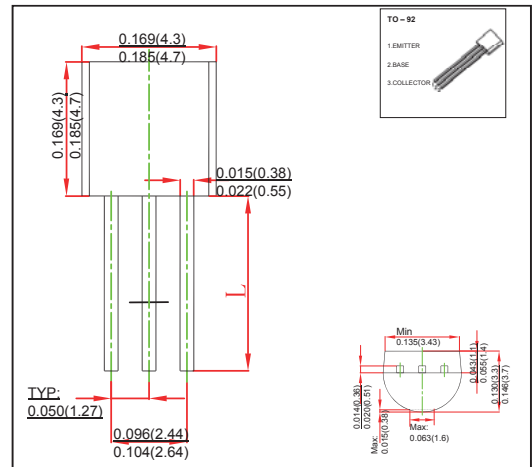
TO-92 Plastic-Encapsulate Transistors

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	Value	Unit
Collector-Base Voltage	V_{CB0}	0	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current -Continuous	I_C	0.6	A
Collector Power Dissipation	P_D	625	mW
Thermal Resistance From Junction To Ambient	R_{KJA}	200	°C /W
Junction Temperature	T_j	100	°C
Storage Temperature	T_{stg}	-55~+150	°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=0.1mA, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=0.1mA, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$		0.1		μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6V, I_C=0$		0.1		μA
DC current gain	H_{FE}	$V_{CE}=1V, I_C=1mA$	20			
		$V_{CE}=1V, I_C=10mA$	40			
		$V_{CE}=1V, I_C=150mA$	50		150	
		$V_{CE}=2V, I_C=500mA$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150mA, I_B=15mA$		0.4		V
		$I_C=500mA, I_B=50mA$			0.75	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=150mA, I_B=15mA$	0.75		0.95	
		$I_C=500mA, I_B=50mA$			1.2	V
Collector output capacitance	C_{ob}	$V_{CB}=5V, I_E=0, f=1MHz$			6.5	pF
Emitter input capacitance	C_{ib}	$V_{EB}=5V, I_C=0, f=1MHz$			30	pF
Transition frequency	f_T	$V_{CE}=10V, I_C=20mA, f=100MHz$	200			MHz

* Pulse test: pulse width $\leq 300\mu s$, duty cycles $\leq 2.0\%$.