

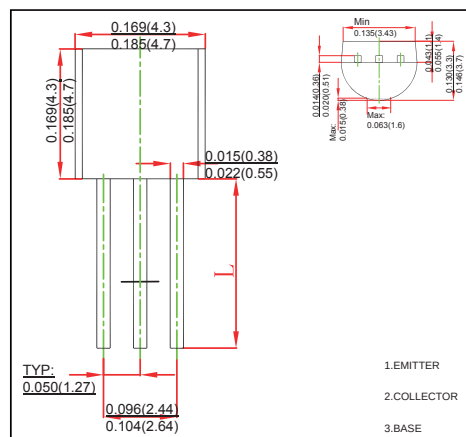
TO-92 Plastic-Encapsulate Transistors

FEATURES

- Switching and amplification in high voltage
- Low current and High voltage
- Transistors NPN

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_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1	A
Collector Power Dissipation	P_C	750	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	166	$^{\circ}\text{C} / \text{W}$
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 ~ +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS $T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 0.01mA, I_E = 0$	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 2mA, I_B = 0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 0.01mA, I_C = 0$	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	$h_{FE(1)}^*$	$V_{CE} = 2V, I_C = 100mA$	135		600	
	$h_{FE(2)}^*$	$V_{CE} = 2V, I_C = 1A$	81			
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C = 1A, I_B = 50mA$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C = 1A, I_B = 50mA$			1.2	V
Base-emitter voltage	V_{BE}^*	$V_{CE} = 2V, I_C = 50mA$	0.6		0.7	V
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$			19	pF
Transition frequency	f_T	$V_{CE} = 2V, I_C = 100mA$	100			MHz

*Pulse test: pulse width $\leq 350\mu\text{s}$, duty cycle $\leq 2.0\%$.