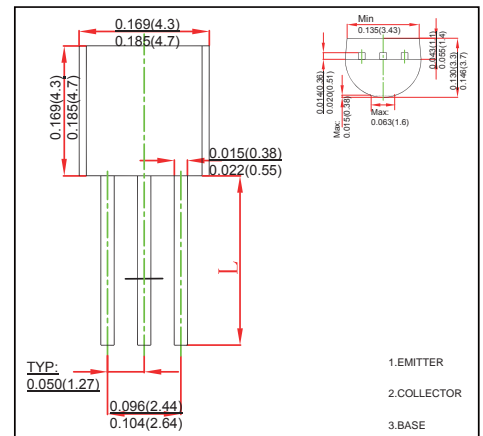


**TO-92 Plastic-Encapsulate Transistors**
**FEATURES**

- 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	$V_{CBO}$	60	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	°C / W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 ~ +150	°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=0.01\text{mA}, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=2\text{mA}, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=0.01\text{mA}, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=60\text{V}, I_E=0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}^*$	$V_{CE}=2\text{V}, I_C=100\text{mA}$	135		600	
	$h_{FE(2)}^*$	$V_{CE}=2\text{V}, I_C=1\text{A}$	81			
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=1\text{A}, I_B=50\text{mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=1\text{A}, I_B=50\text{mA}$			1.2	V
Base-emitter voltage	$V_{BE}^*$	$V_{CE}=2\text{V}, I_C=50\text{mA}$	0.6		0.7	V
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			19	pF
Transition frequency	$f_T$	$V_{CE}=2\text{V}, I_C=100\text{mA}$	100			MHz

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