

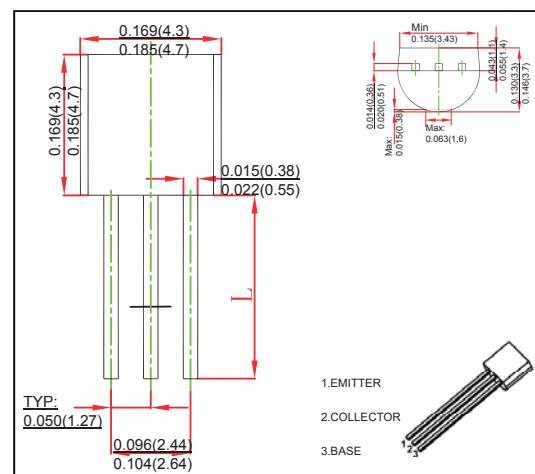
## TO-92 Plastic-Encapsulate Transistors

### FEATURES

- High Forward Current Transfer Ratio  $h_{FE}$
- Low Collector to Emitter Saturation Voltage  $V_{CE(sat)}$
- Allowing Supply with the Radial Taping
- TRANSISTOR (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	$V_{EBO}$	7	V
Collector Current -Continuous	$I_C$	100	mA
Collector Power Dissipation	$P_c$	400	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-55~+150	°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=2mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	7			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=20V, I_E=0$			1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=7V, I_C=0$			1	$\mu A$
DC current gain	$h_{FE}(1)$	$V_{CE}=10V, I_C=2mA$	160		460	
	$h_{FE}(2)$	$V_{CE}=2V, I_C=100mA$	90			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$			0.3	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=2mA, f=200MHz$		150		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	3.5			pF