

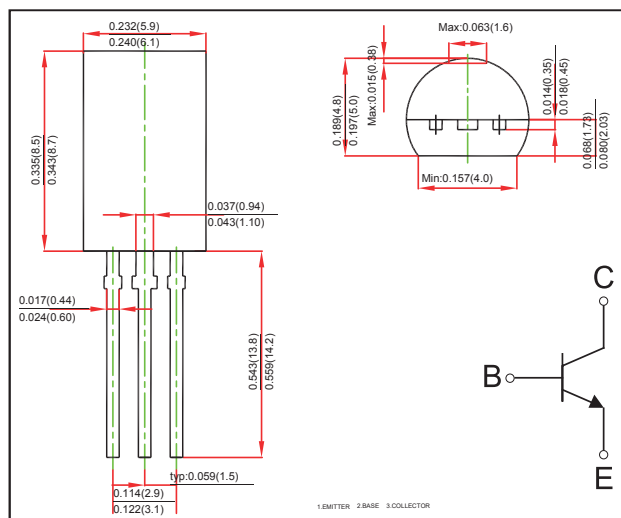
TO-92 Plastic-Encapsulate Transistors

FEATURES

- High Breakdown Voltage
- Complementary Pair with KSP44
- TRANSISTOR (NPN)

MECHANICAL DATA

- Case style:TO-92L molded plastic
- Mounting position:any



Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector Base Voltage	500	V
V_{CEO}	Collector Emitter Voltage	400	V
V_{EBO}	Emitter Base Voltage	6	V
I_C	Collector Current	300	mA
P_C	Collector Power Dissipation	625	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55 ~ +150	$^{\circ}\text{C}$
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	$^{\circ}\text{C/W}$

Electrical Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = 100\mu\text{A}$, $I_E = 0$	500			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = 1\text{mA}$, $I_B = 0$	400			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = 100\mu\text{A}$, $I_C = 0$	6			V
I_{CBO}	Collector cut-off current	$V_{CB} = 400\text{V}$, $I_E = 0$			100	nA
I_{CES}	Collector cut-off current	$V_{CE} = 30\text{V}$, $I_B = 0$			500	nA
I_{EBO}	Emitter cut-off current	$V_{EB} = 4\text{V}$, $I_C = 0$			100	nA
$h_{FE(1)}$	DC current gain	$V_{CE} = 5\text{V}$, $I_C = 1\text{mA}$	100		200	
$h_{FE(2)}$		$V_{CE} = 5\text{V}$, $I_C = 10\text{mA}$	100			
$h_{FE(3)}$		$V_{CE} = 10\text{V}$, $I_C = 1\text{mA}$	70			
$h_{FE(4)}$		$V_{CE} = 10\text{V}$, $I_C = 10\text{mA}$	80			
$h_{FE(5)}$		$V_{CE} = 10\text{V}$, $I_C = 50\text{mA}$	80			
$h_{FE(6)}$		$V_{CE} = 10\text{V}$, $I_C = 100\text{mA}$	40			
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = 1\text{mA}$, $I_B = 0.1\text{mA}$			0.18	V
		$I_C = 10\text{mA}$, $I_B = 1\text{mA}$			0.20	V
		$I_C = 50\text{mA}$, $I_B = 5\text{mA}$			0.30	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C = 10\text{mA}$, $I_B = 1\text{mA}$			0.75	V
f_T	Transition frequency	$V_{CE}=20\text{V}$, $I_C=10\text{mA}$, $f=30\text{MHz}$	50			MHz

