

TO-92 Plastic-Encapsulate Transistors

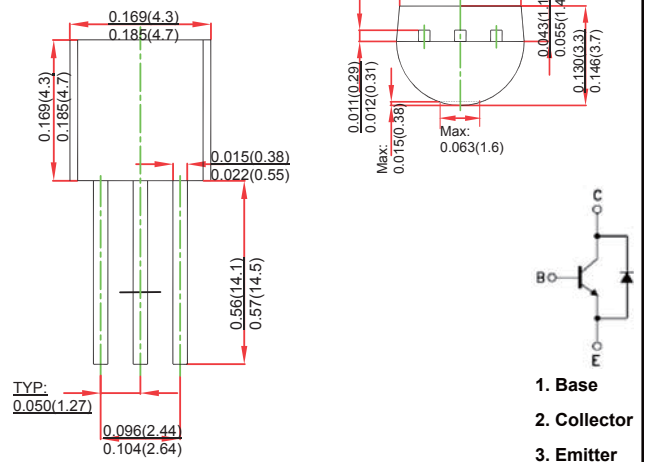
FEATURES

- NPN Transistors
- Low switching loss and high reliability
- High temperature characteristics
- Reverse leakage

MECHANICAL DATA

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

TO-92



MAXIMUM RATINGS

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

Symbol	Parameter	Value	Unit
V_{CB0}	Collector Base Voltage	600	V
V_{CEO}	Collector Emitter Voltage	400	V
V_{EBO}	Emitter Base Voltage	9	V
I_c	Collector Current	1	A
P_{tot}	Total Power Dissipation	1.25	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55 ~ +150	$^{\circ}\text{C}$

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	$I_c = 0.1\text{mA}$, $I_E = 0$	600			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	$I_E = 0.1\text{mA}$, $I_c = 0$	9			V
I_{cBO}	Collector cut-off current	$V_{CB} = 600\text{V}$, $I_E = 0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB} = 9\text{V}$, $I_c = 0$			10	μA
h_{FE}	DC current gain	$V_{CE} = 5\text{V}$, $I_c = 200\text{mA}$	15		30	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_c = 500\text{mA}$, $I_B = 100\text{mA}$			0.5	V
V_{ECF}		$I_c = 1.5\text{A}$			2.5	V
t_s	Storage time	UI9600A, $I_c = 0.25\text{A}$	1.5		4.0	μs
f_r	Transition frequency	$V_{CE} = 10\text{V}$, $I_c = 0.1\text{A}$, $f = 1\text{MHz}$	5			MHz

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

