

TO-92 Plastic-Encapsulate Transistors

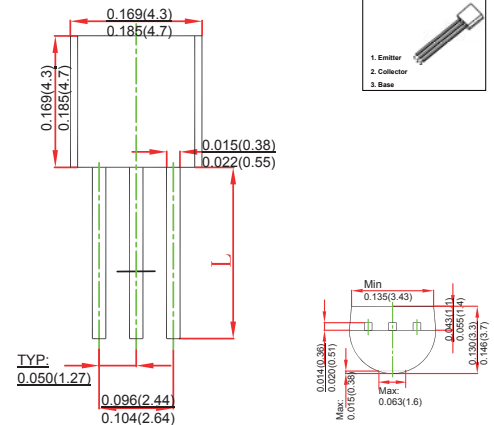
FEATURES

- Excellent hFE Linearity
- Low Noise
- Complementary to KTC3198
- TRANSISTOR (PNP)

MECHANICAL DATA

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

TO-92



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	-50	V
V_{CE0}	Collector-Emitter Voltage	-50	V
V_{EB0}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-150	mA
P_D	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	°C /W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-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	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$, $I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$, $I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}$, $I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -50\text{V}$, $I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -6\text{V}$, $I_C = -2\text{mA}$	70		400	
	$h_{FE(2)}$	$V_{CE} = -6\text{V}$, $I_C = -150\text{mA}$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}$, $I_B = -10\text{mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{mA}$, $I_B = -10\text{mA}$			-1.1	V
Transition frequency	f_T	$V_{CE} = -10\text{V}$, $I_C = -1\text{mA}$	80			MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$			7	pF
Noise figure	NF	$V_{CE} = -6\text{V}$, $I_C = -0.1\text{mA}$, $f = 1\text{KHz}$, $R_g = 10\text{K}\Omega$			10	dB

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	GR
Range	70-140	120-240	200-400