



1. BASE
2. EMITTER
3. COLLECTOR

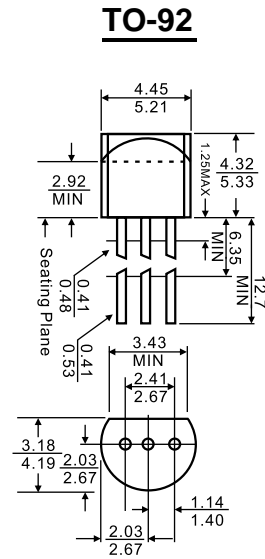
Features

High Gain: $G_{pe} = 33 \text{ dB}$ (Typ.) ($f = 45 \text{ MHz}$)

Good Linearity of h_{FE} .

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current -Continuous	50	mA
P_C	Collector Power Dissipation	300	mW
T_j	Junction Temperature	125	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-125	$^\circ\text{C}$

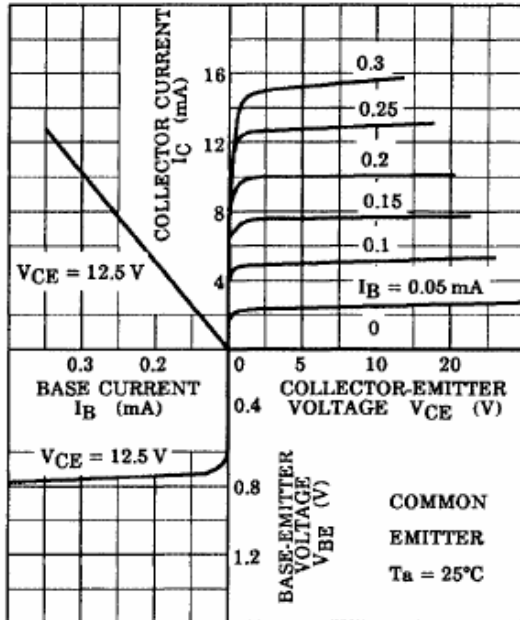
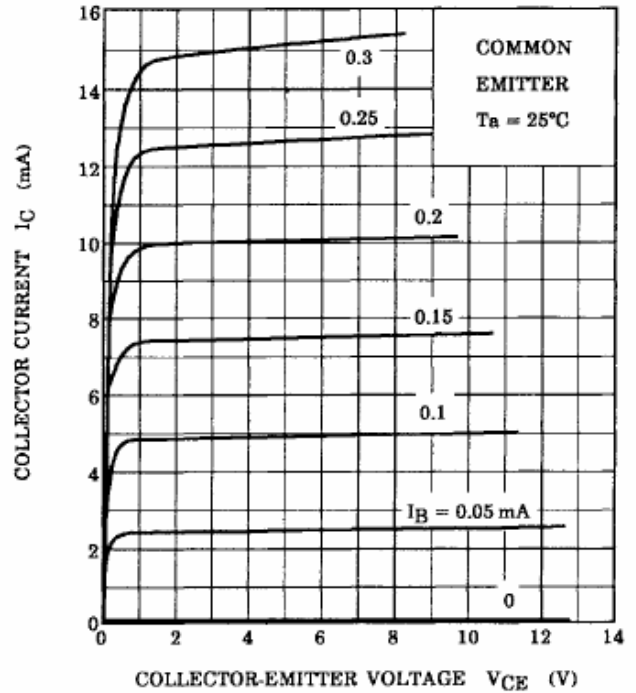
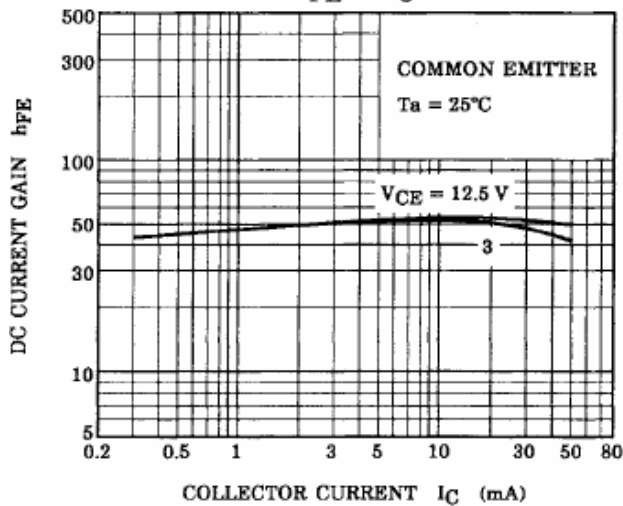


Dimensions in inches and (millimeters)

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu\text{A}, I_E = 0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10 \text{ mA}, I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu\text{A}, I_C = 0$	4			V
Collector cut-off current	I_{CBO}	$V_{CB} = 30 \text{ V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 3 \text{ V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 12.5 \text{ V}, I_C = 12.5 \text{ mA}$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 15 \text{ mA}, I_B = 1.5 \text{ mA}$			0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 15 \text{ mA}, I_B = 1.5 \text{ mA}$			1.5	V
Transition frequency	f_T	$V_{CE} = 12.5 \text{ V}, I_C = 12.5 \text{ mA}$	300			MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 30 \text{ MHz}$	0.8		2.0	pF
Collector-base time constant	$C_{c-rbb'}$	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 30 \text{ MHz}$			25	ps
Power gain (fig.)	G_{pe}	$V_{CC} = 12.5 \text{ V}, I_E = -12.5 \text{ mA}, f = 45 \text{ MHz}$	28		36	dB

Typical Characteristics

STATIC CHARACTERISTICS

 $I_C - V_{CE}$

 $h_{FE} - I_C$

 $f_T - I_C$
