

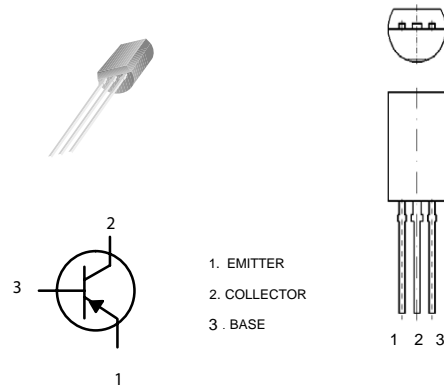
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

TO-92L

FEATURES

- Automatic insertion by radial taping possible.
- Complementary pair with 2SC1384.



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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1	A
P_C	Collector Dissipation	1	W
T_J, T_{stg}	Junction and Storage Temperature	-55-150	$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired

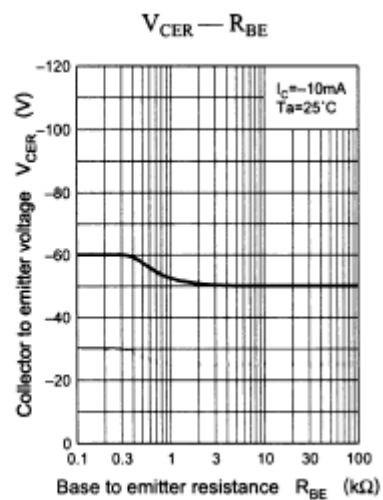
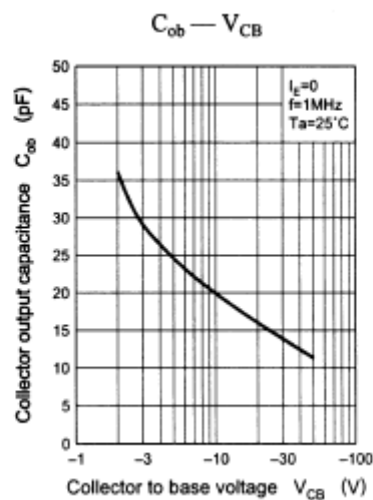
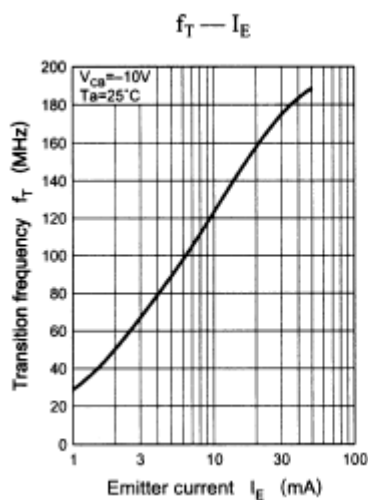
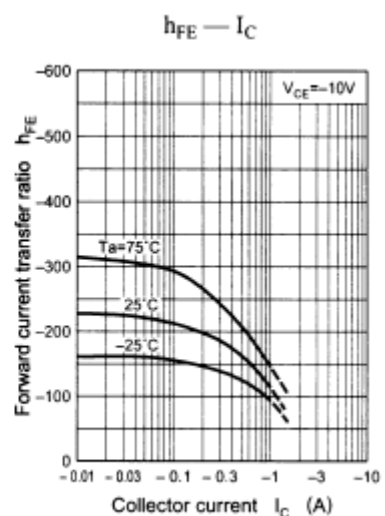
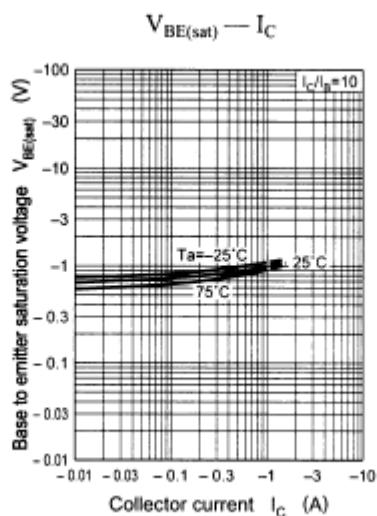
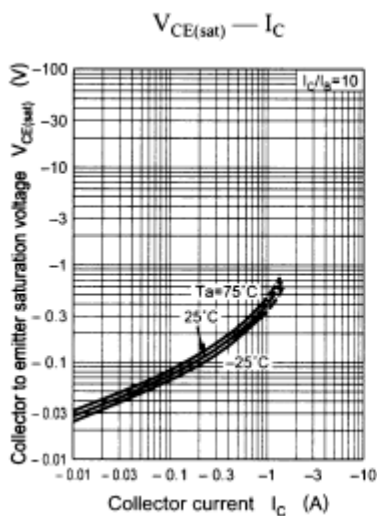
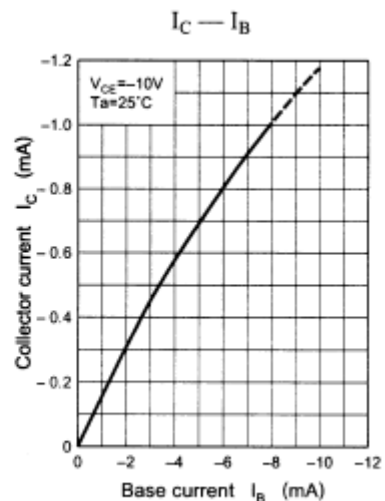
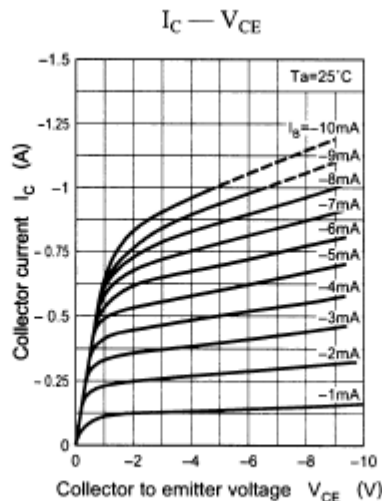
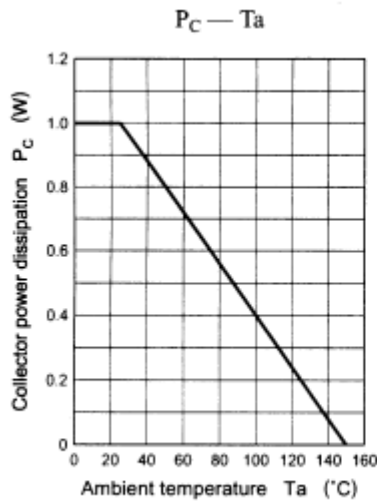
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-2\text{mA}, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-20\text{V}, I_E=0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-10\text{V}, I_C=-500\text{mA}$	85		340	
	$h_{FE(2)}$	$V_{CE}=-5\text{V}, I_C=-1\text{A}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-0.2	-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-0.85	-1.2	V
Transition frequency	f_T	$V_{CE}=-10\text{V}, I_E=50\text{mA}, f=200\text{MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		20	30	pF

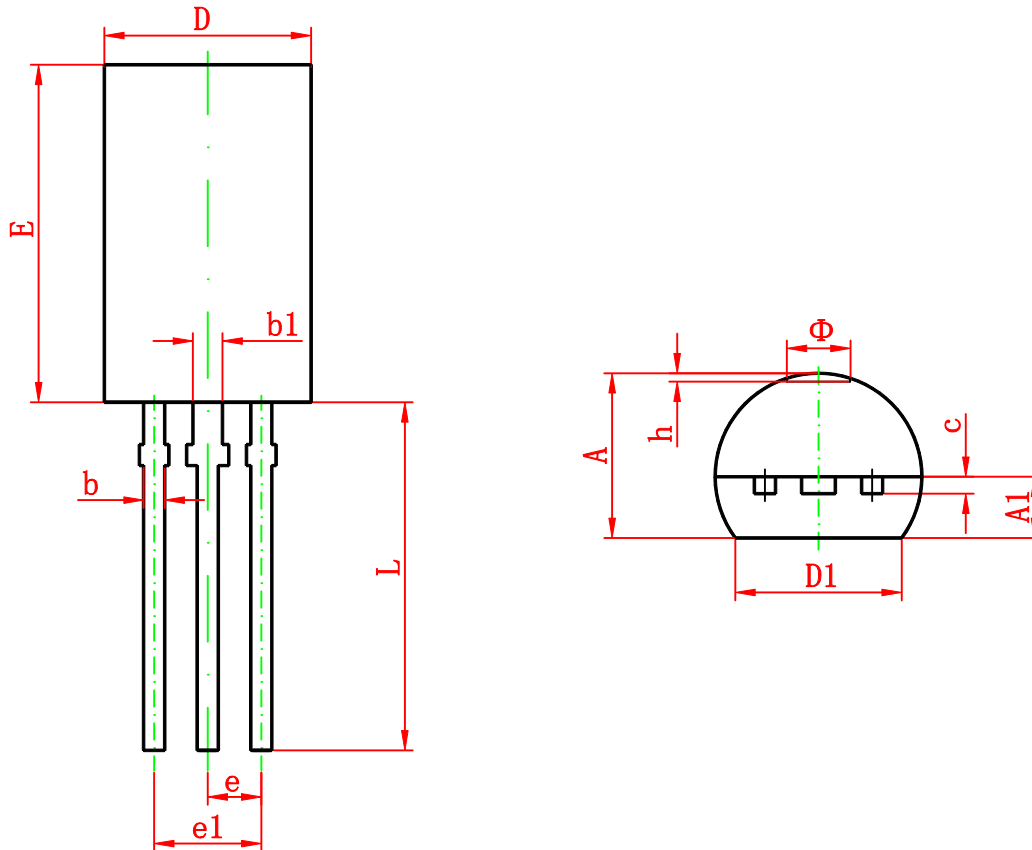
CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R	S
Range	85-170	120-240	170-340

Typical Characteristics



TO-92L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.700	4.100	0.146	0.161
A1	1.280	1.580	0.050	0.062
b	0.350	0.550	0.014	0.022
b1	0.600	0.800	0.024	0.031
c	0.350	0.450	0.014	0.018
D	4.700	5.100	0.185	0.201
D1	4.000		0.157	
E	7.800	8.200	0.307	0.323
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	13.800	14.200	0.543	0.559
Φ		1.600		0.063
h	0.000	0.300	0.000	0.012