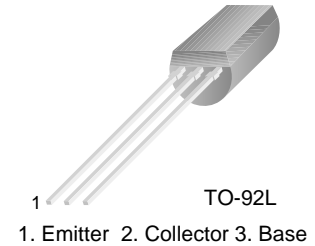


■■ APPLICATION: High Frequency Amplifier Applications.

■■ MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CBO}	-30	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-30	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55~150	$^\circ\text{C}$


■■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
DC Current Gain	h_{FE}	70		220		$V_{CE} = -10\text{V}$, $I_C = -1\text{mA}$
Collector Emitter Cut-off Current	I_{CEO}			-100	μA	$V_{CE} = -20\text{V}$, $I_B = 0$
Collector Cut-off Current	I_{CBO}			-0.1	μA	$V_{CB} = -10\text{V}$, $I_E = 0$
Emitter Cut-off Current	I_{EBO}			-10	μA	$V_{EB} = -5\text{V}$, $I_C = 0$
Collector-Base Breakdown Voltage	BV_{CBO}	-30			V	$I_C = -0.1\text{mA}$, $I_E = 0$
Collector-Emitter Breakdown Voltage	BV_{CEO}	-20			V	$I_C = -1\text{mA}$, $I_B = 0$
Emitter-Base Breakdown Voltage	BV_{EBO}	-5			V	$I_E = -0.1\text{mA}$, $I_C = 0$
Base-Emitter Voltage	V_{BE}		-0.7		V	$V_{CE} = -10\text{V}$, $I_C = -1\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.1		V	$I_C = -10\text{mA}$, $I_B = -1\text{mA}$
Gain bandwidth product	f_T	150	300		MHz	$I_C = -1\text{mA}$, $V_{CE} = -10\text{V}$, $f = 200\text{MHz}$
Common Base Output Capacitance	C_{re}		1.2	2.0	PF	$V_{CB} = -10\text{V}$, $f = 10.7\text{MHz}$, $I_C = -1\text{mA}$
Noise Figure	N_F		2.8	4.0	dB	$V_{CE} = -10\text{V}$, $I_C = -1\text{mA}$, $f = 5\text{MHz}$

■■ h_{FE} Classification

Classification	B	C
h_{FE}	70~140	140~220