

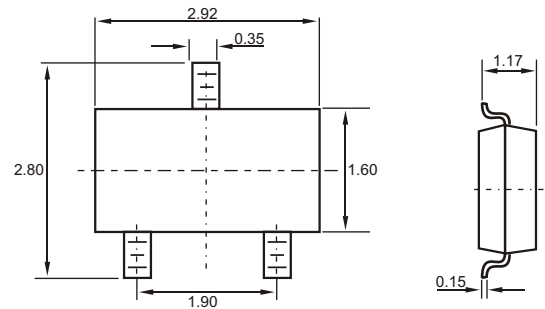


1. BASE
2. EMITTER
3. COLLECTOR

Features

- ✧ Low noise amplifier at VHF, UHF and CATV band.
- ✧ Low Noise and High Gain
- ✧ High Power Gain

SOT-23-3L



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

Dimensions in inches and (millimeters)

Symbol	Parameter	Value	Units
V_{CBO}	Collector- Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current -Continuous	0.1	A
P_C	Collector Power Dissipation	0.25	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$, $I_E=0$	20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	12			V
Collector cut-off current	I_{CBO}	$V_{CB}=10\text{V}$, $I_E=0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=1\text{V}$, $I_C=0$			1	μA
DC current gain	h_{FE}^*	$V_{CE}=10\text{V}$, $I_C=20\text{mA}$	50		250	
Transition frequency	f_T	$V_{CE}=10\text{V}$, $I_C=20\text{mA}$		7		GHz
Noise figure	NF	$V_{CE}=10\text{V}$, $I_C=7\text{mA}$, $f=1\text{GHz}$			2	dB

* pulse test: pulse width $\leq 350\mu\text{s}$, Duty cycle $\leq 2\%$

CLASSIFICATION OF h_{FE}

Marking	R23	R24	R25
Rank	Q	R	S
Range	50-100	80-160	125-250

Typical Characteristics

