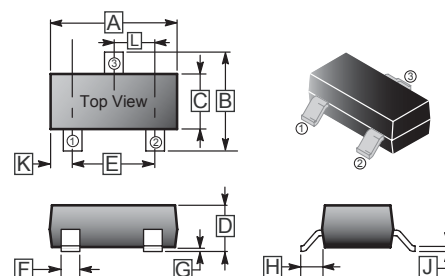
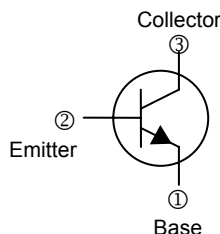


RoHS Compliant Product
 A suffix of "-C" specifies halogen & lead-free

SOT-323

FEATURES

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



MARKING



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650 TYP.	
F	0.20	0.40			

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	20	V
Collector to Emitter Voltage	V_{CEO}	12	V
Emitter to Base Voltage	V_{EBO}	3	V
Collector Current - Continuous	I_C	0.1	A
Total Device Dissipation	P_C	200	mW
Junction and Storage Temperature	T_J, T_{STG}	150, -55~150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV_{CBO}	20	-	-	V	$I_C=10\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	BV_{CEO}	12	-	-	V	$I_C=1\text{mA}, I_B=0$
Collector Cut-off Current	I_{CBO}	-	-	1	μA	$V_{CB}=10\text{V}, I_E=0$
Emitter Cut-off Current	I_{EBO}	-	-	1	μA	$V_{EB}=1\text{V}, I_C=0$
DC Current Gain	h_{FE}^*	50	-	250		$V_{CE}=10\text{V}, I_C=20\text{mA}$
Transition Frequency	f_T	-	7	-	GHz	$V_{CE}=10\text{V}, I_C=20\text{mA}$
Collector Output Capacitance	NF	-	-	2	dB	$V_{CE}=10\text{V}, I_C=7\text{mA}, f=1\text{GHz}$

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

CLASSIFICATION OF h_{FE}

Rank	Q	R	S
Coding	23	24	25
Range	50 - 100	80 - 160	125 - 250
Marking	R23	R24	R25

CHARACTERISTICS CURVE

