

isc Silicon NPN RF Transistor

2SC3110

DESCRIPTION

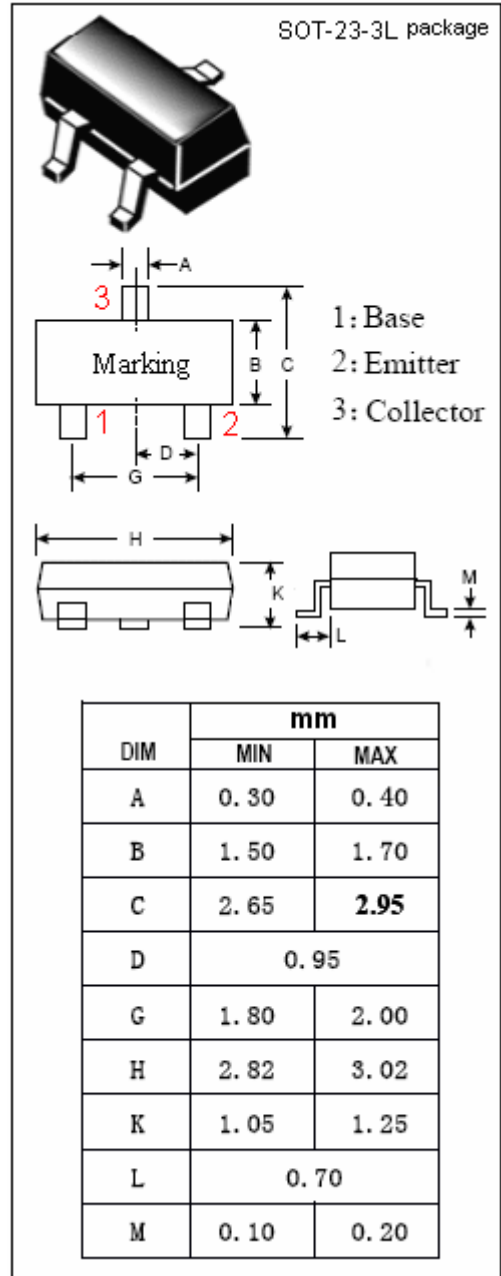
- Low Noise
- High Gain
- High Current-Gain Bandwidth Product

APPLICATIONS

- Designed for use in RF wide band low noise amplifier.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	15	V
V _{CEO}	Collector-Emitter Voltage	12	V
V _{EBO}	Emitter-Base Voltage	2.5	V
I _C	Collector Current-Continuous	30	mA
I _{CP}	Collector Current-Peak	50	mA
P _C	Collector Power Dissipation @T _C =25°C	0.2	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



isc Silicon NPN RF Transistor

2SC3110

ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{CBO}	Collector Cutoff Current	$V_{CB}=10\text{V}; I_E=0$			0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=2\text{V}; I_C=0$			1	μA
h_{FE}	DC Current Gain	$I_C=10\text{mA}; V_{CE}=10\text{V}$	40			
f_T	Current-Gain—Bandwidth Product	$I_E=-10\text{mA}; V_{CE}=10\text{V}$		4.5		GHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$			1.2	pF
$ S_{21e} ^2$	Insertion Power Gain	$I_C=20\text{mA}; V_{CE}=10\text{V}; f=0.8\text{GHz}$	9	12		dB
GUM	Power Gain		12	14		dB
NF	Noise Figure	$I_C=5\text{mA}; V_{CE}=10\text{V}; f=0.8\text{GHz}$		1.3	2.5	dB