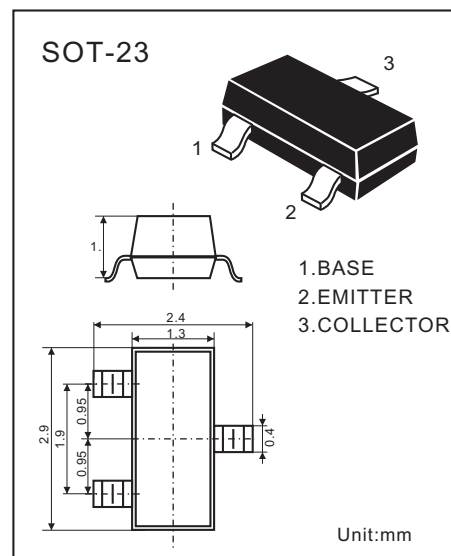


NPN EPITAXIAL SILICON TRANSISTOR

AM/FM IF AMPLIFIER, LOCAL OSCILATOR OF FM/VHF TUNER

- High Current Gain Bandwidth
- Product $f_T=1100\text{MHz}$



ABSOLUTE MAXIMUM RATINGS

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	mA
Collector Dissipation $T_a=25^\circ\text{C}^*$	P_D	225	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~150	$^\circ\text{C}$

Electrical Characteristics

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

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Collector-Base Breakdown Voltage	BV_{CB0}	30			V	$I_C=100\mu\text{A}$, $I_E=0$
Collector-Emitter Breakdown Voltage#	BV_{CEO}	15			V	$I_C=1\text{mA}$, $I_B=0$
Emitter-Base Breakdown Voltage	BV_{EBO}	5			V	$I_E=100\mu\text{A}$, $I_C=0$
Collector-Base Cutoff Current	I_{CBO}			50	nA	$V_{CB}=12\text{V}$, $V_E=0$
Emitter-Base Cutoff Current	I_{EBO}			50	nA	$V_{CB}=3\text{V}$, $I_C=0$
DC Current Gain	H_{FE}	28	100	300		$V_{CB}=5\text{V}$, $I_C=1\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	$I_C=10\text{mA}$, $I_B=1\text{mA}$
Collector-Base Capacitance	C_{ob}		1.3	1.7	PF	$V_{CB}=10\text{V}$, $I_E=10$, $f=1\text{MHz}$
Collector-Gain-Bandwidth Product	f_T	700	1100		MHz	$V_{CE}=5\text{V}$, $I_C=5\text{mA}$

*Total Device Dissipation:FR=1X0.75X0.062 in Board Derate 25°C

#Pulse Test: Pulse Width 300uS Duty cycle 2%

DEVICE MARKING:

2SC1812=J8