

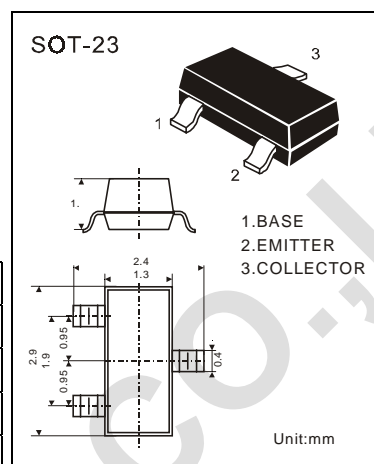
NPN EPITAXIAL SILICON TRANSISTOR

**AM/FM IF AMPLIFIER, LOCAL OSCILLATOR
OF FM/VHF TUNER**

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

ABSOLUTE MAXIMUM RATINGS at Ta=25°C

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	Vcbo	40	V
Collector-Emitter Voltage	Vceo	30	V
Emitter-Base Voltage	Vebo	4.0	V
Collector Current	Ic	20	mA
Collector Dissipation Ta=25°C*	P _D	100	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-150	°C



ELECTRICAL CHARACTERISTICS at Ta=25°C

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	Bv _{cbo}	40			V	I _c =100uA I _e =0
Collector-Emitter Breakdown Voltage#	Bv _{ceo}	30			V	I _c = 1mA I _b =0
Emitter-Base Breakdown Voltage	Bv _{ebo}	4.0			V	I _e = 100uA I _c =0
Collector-Base Cutoff Current	I _{cbo}			500	nA	V _{cb} = 18V I _e =0
Emitter-Base Cutoff Current	I _{ebo}			500	nA	V _{eb} = 4V I _c = 0
DC Current Gain	H _{fe}	40		200		V _{ce} = 6V I _c = 1mA
Collector-Emitter Saturation Voltage	V _{ce(sat)}			0.40	V	I _c = 10mA I _b = 1mA
Collector-Base Capacitance	C _{ob}		1.3	1.7	PF	V _{cb} =10V I _e =0 f=1MHZ
Current Gain-Bandwidth Product	f _T		550		MHz	V _{ce} = 6V I _c = 1mA

* Total Device Dissipation : FR=1x0.75x0.062in Board, Derate 25°C.

Pulse Test : Pulse Width ≤300uS, Duty cycle ≤2%