

isc Silicon NPN RF Transistor

2SC2734

**DESCRIPTION**

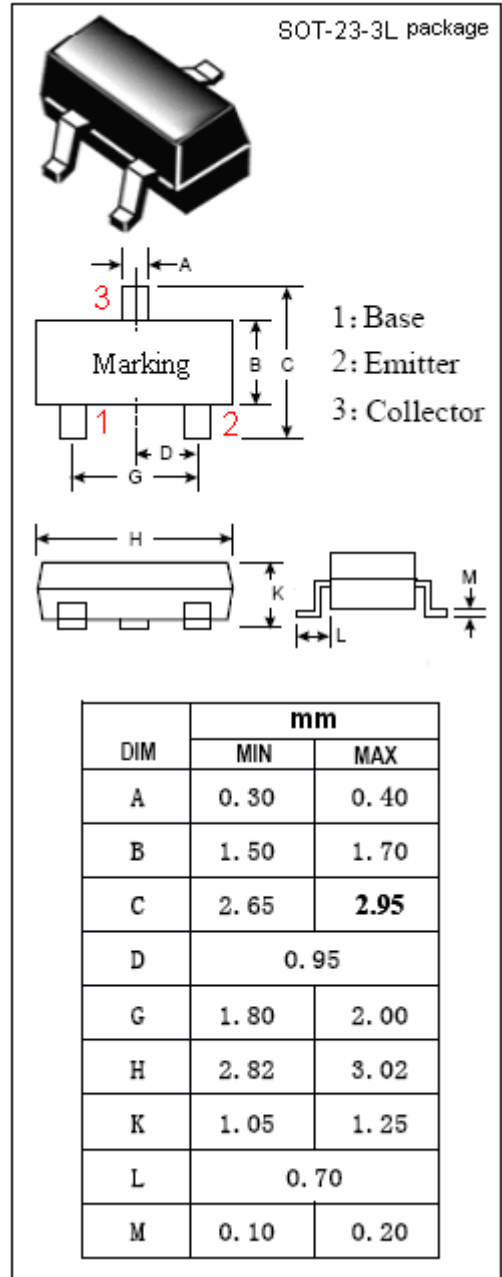
- Low Noise
- High Gain

**APPLICATIONS**

- UHF frequency converter
- Local oscillator , wide band amplifier

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	20	V
V <sub>CEO</sub>	Collector-Emitter Voltage	11	V
V <sub>EBO</sub>	Emitter-Base Voltage	3	V
I <sub>C</sub>	Collector Current-Continuous	50	mA
P <sub>C</sub>	Collector Power Dissipation @T <sub>C</sub> =25°C	0.15	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



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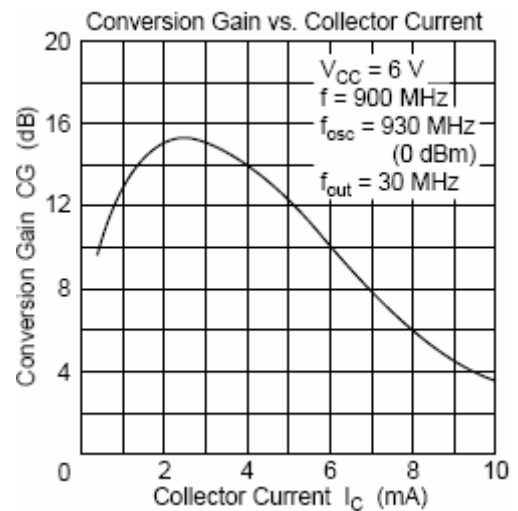
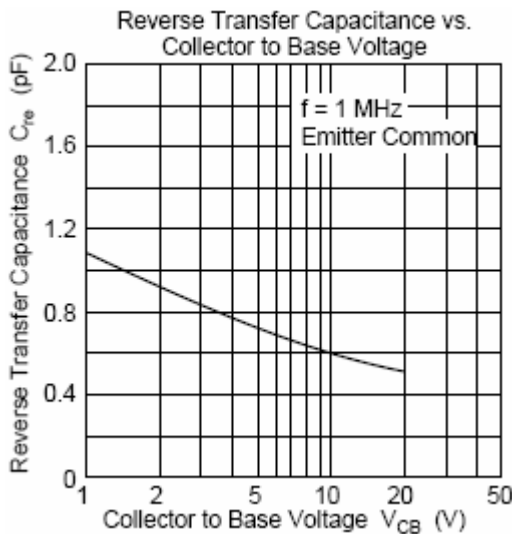
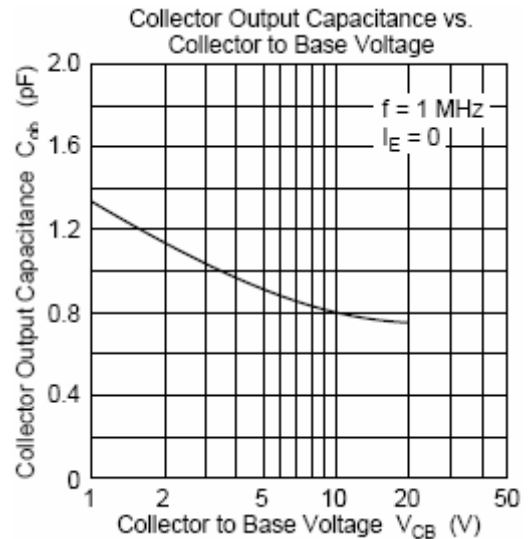
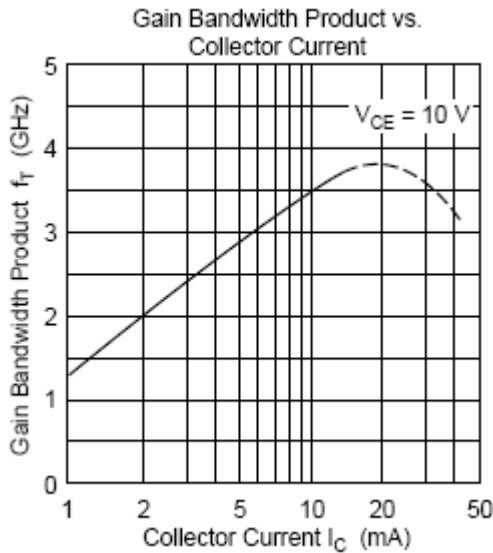
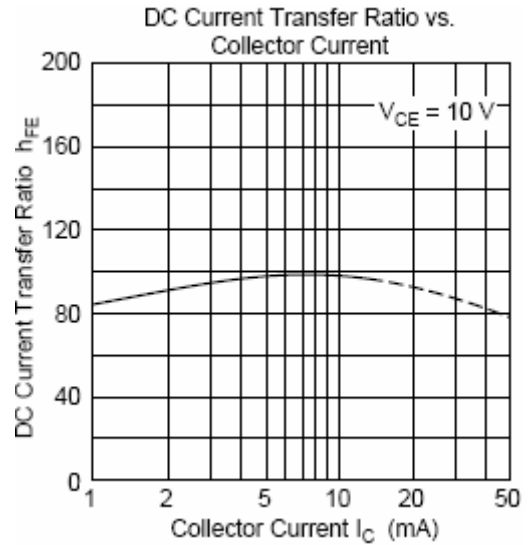
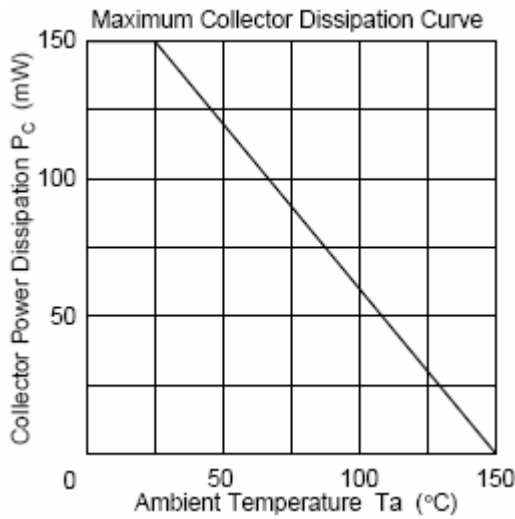
## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 10 μ A ; I <sub>E</sub> = 0	20			V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 1mA ; R <sub>BE</sub> = ∞	11			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 10 μ A ; I <sub>C</sub> = 0	3			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 10mA ; I <sub>B</sub> = 5mA			0.7	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 10V ; I <sub>E</sub> = 0			0.5	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 5mA ; V <sub>CE</sub> = 10V	20		200	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 10mA ; V <sub>CE</sub> = 10V	1.4	3.5		GHz
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 10V;f= 1.0MHz		0.9	1.5	pF
CG	Conversion Gain	I <sub>C</sub> = 2mA ; V <sub>CC</sub> = 6V;f= 900MHz f <sub>OSC</sub> = 930MHz(0dBm), f <sub>out</sub> = 30MHz		15		dB
NF	Noise Figure	I <sub>C</sub> = 2mA ; V <sub>CC</sub> = 6V;f= 900MHz f <sub>OSC</sub> = 930MHz(0dBm), f <sub>out</sub> = 30MHz		9		dB
V <sub>OSC</sub>	Oscillating output voltage	I <sub>C</sub> = 5mA ; V <sub>CC</sub> = 6V;f= 930MHz		140		mV

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