

**DESCRIPTION**

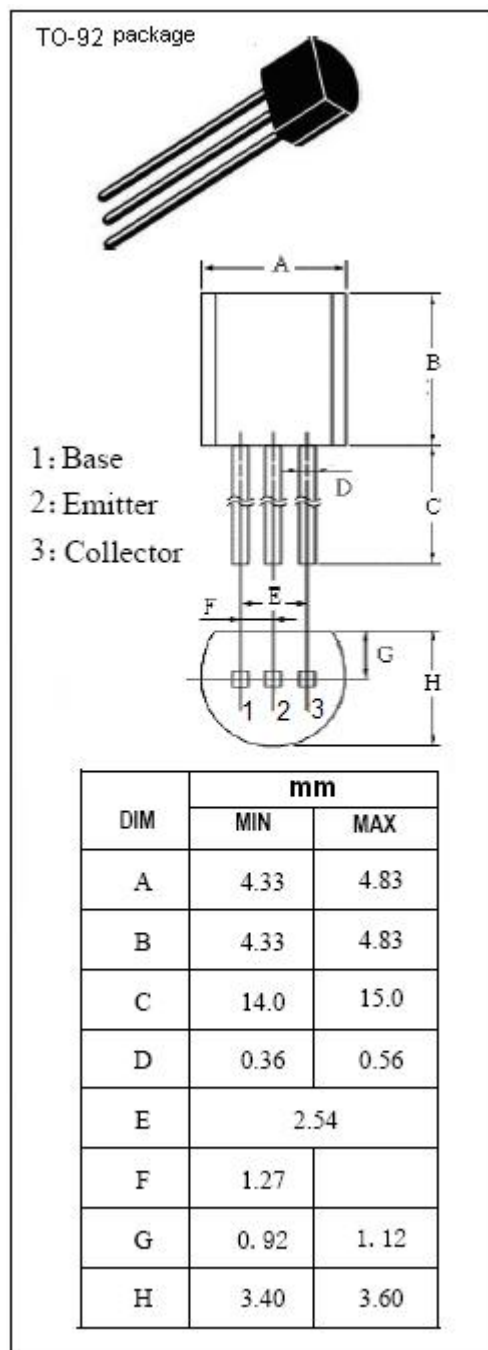
- Low Noise and High Gain  
 NF = 1.6 dB TYP. @f = 900 MHz  
 PG = 10.5 dB TYP. @f = 900 MHz
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in low-noise and small signal amplifiers from VHF ~ UHF band.

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	15	V
V <sub>CEO</sub>	Collector-Emitter Voltage	11	V
V <sub>EBO</sub>	Emitter-Base Voltage	2	V
I <sub>c</sub>	Collector Current-Continuous	50	mA
P <sub>c</sub>	Collector Power Dissipation @T <sub>c</sub> =25°C	0.6	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



## isc Silicon NPN RF Transistor

## 2SC3512

## 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	15			V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 12V; I <sub>E</sub> = 0			1.0	μ A
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 10V; R <sub>BE</sub> = ∞			1.0	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 1V; I <sub>C</sub> = 0			1.0	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 20mA ; V <sub>CE</sub> = 5V	50		250	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 20mA ; V <sub>CE</sub> = 5V		6.0		GHz
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 5V; f= 1.0MHz		1.2	1.6	pF
PG	Power Gain	I <sub>C</sub> = 20mA; V <sub>CE</sub> = 5V; f= 900MHz		10.5		dB
NF	Noise Figure	I <sub>C</sub> = 5mA ; V <sub>CE</sub> = 5V; f= 900MHz		1.6		dB

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