

**isc Silicon NPN RF Transistor**
**2SC4252**
**DESCRIPTION**

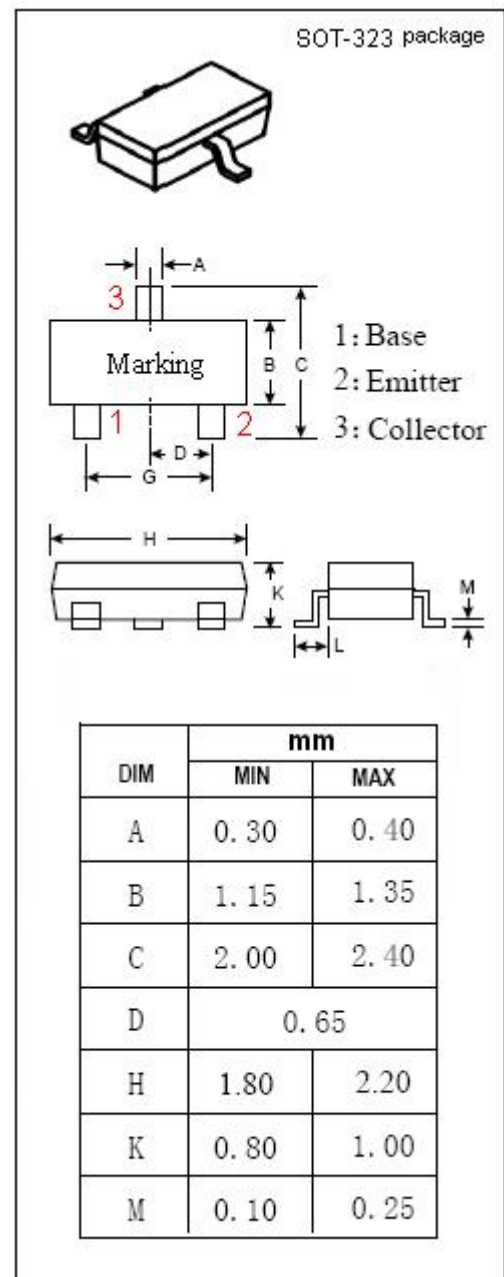
- High Current-Gain Bandwidth Product  
 $f_T = 2.1 \text{ GHz TYP.}$
- Low Output Capacitance-  
 $C_{OB} = 1.1 \text{ pF TYP.}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for TV tuner ,VHF oscillator applications.

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	20	V
$V_{CEO}$	Collector-Emitter Voltage	12	V
$V_{EBO}$	Emitter-Base Voltage	3	V
$I_C$	Collector Current-Continuous	30	mA
$I_B$	Base Current-Continuous	15	mA
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.1	W
$T_J$	Junction Temperature	125	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~125	$^\circ\text{C}$



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 20V; I <sub>E</sub> = 0			0.1	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 3V; I <sub>C</sub> = 0			1.0	μ A
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 1mA ; I <sub>B</sub> = 0	12			V
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 5mA ; V <sub>CE</sub> = 10V	40		250	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 5mA;V <sub>CE</sub> = 10V ; f= 500MHz	1.5	2.1		GHz
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 10V; f= 1MHz		1.1	1.4	pF
r <sub>bb'</sub> · C <sub>C</sub>	Base Time Constant	I <sub>C</sub> = 5mA ; V <sub>CB</sub> = 10V;f= 30MHz		4.3	10	ps

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