

isc Silicon NPN RF Transistor

2SC4537

DESCRIPTION

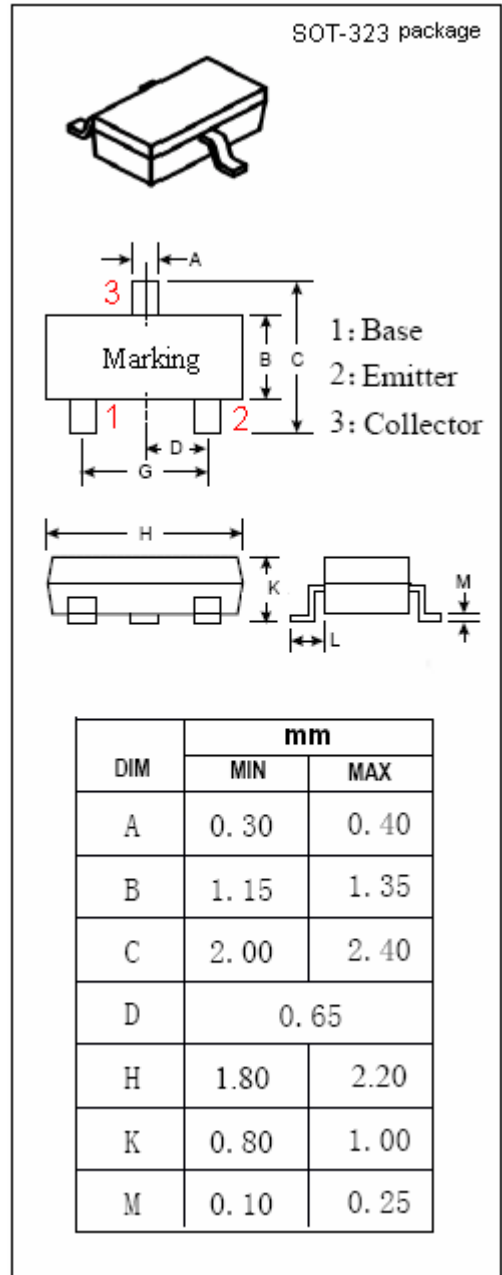
- Low Noise
 $NF = 1.6 \text{ dB TYP.}, @V_{CE} = 5 \text{ V}, I_C = 5 \text{ mA}, f = 900 \text{ MHz}$
- High Power Gain
 $PG = 10 \text{ dB TYP.}, @V_{CE} = 5 \text{ V}, I_C = 20 \text{ mA}, f = 900 \text{ MHz}$

APPLICATIONS

- Designed for VHF, UHF low noise amplifier.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	15	V
V_{CEO}	Collector-Emitter Voltage	11	V
V_{EBO}	Emitter-Base Voltage	2	V
I_C	Collector Current-Continuous	50	mA
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	0.1	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



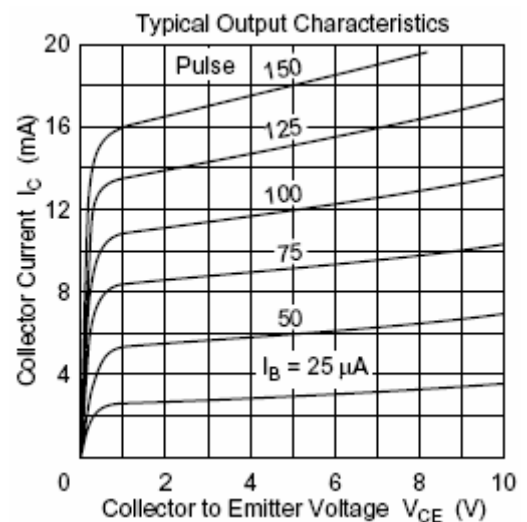
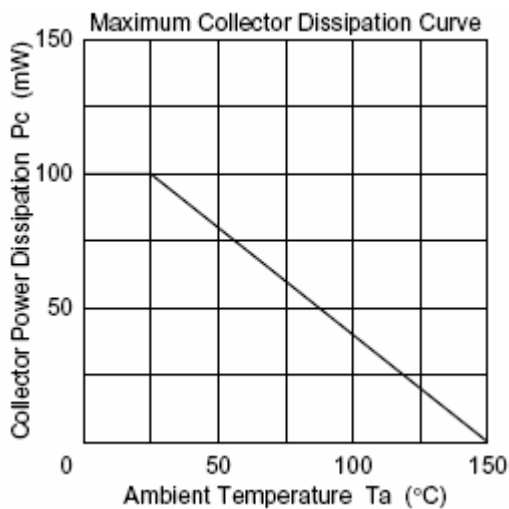
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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 10 μ A ; I _E = 0	15			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 12V; I _E = 0			1.0	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 10V; I _E = ∞			1.0	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 1V; I _C = 0			1.0	μ A
h _{FE}	DC Current Gain	I _C = 20mA ; V _{CE} = 5V	50		250	
f _T	Current-Gain—Bandwidth Product	I _C = 20mA ; V _{CE} = 5V	4.5	6.0		GHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 5V;f= 1.0MHz		1.0	1.5	pF
PG	Power Gain	I _C = 20mA ; V _{CE} = 5V; f= 900MHz		10		dB
NF	Noise Figure	I _C = 5mA ; V _{CE} = 5V;f= 900MHz		1.6		dB



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