

isc Silicon NPN RF Transistor

BFS520

DESCRIPTION

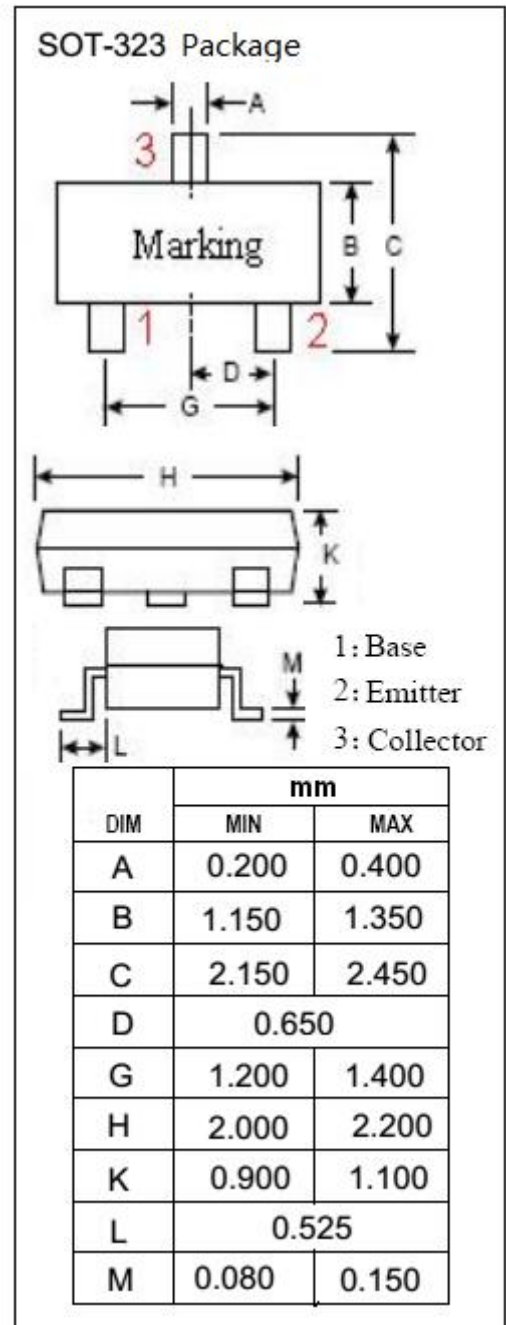
- Low Noise and High Gain
NF = 1.5 dB TYP
@V_{CE} = 6V, I_C = 5 mA, f = 1.0 GHz
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
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APPLICATIONS

- Designed for low noise amplifier at VHF, UHF

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	20	V
V _{CEO}	Collector-Emitter Voltage	12	V
V _{EBO}	Emitter-Base Voltage	2.0	V
I _C	Collector Current-Continuous	0.1	A
P _C	Collector Power Dissipation @T _C =25°C	150	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~150	°C



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I _{CBO}	Collector Cutoff Current	V _{CB} = 10V; I _E = 0			0.1	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 1V; I _C = 0			0.1	μ A
h _{FE}	DC Current Gain	I _C = 20mA ; V _{CE} = 6V	90		250	
f _T	Current-Gain—Bandwidth Product	I _C = 20mA ; V _{CE} = 6V		8		GHz
C _{re}	Feed-Back Capacitance	I _E = 0 ; V _{CB} = 6V;f= 1.0MHz		0.4	0.7	pF
S _{21e} ²	Insertion Power Gain	I _C = 20mA ; V _{CE} = 6V;f= 1.0GHz		12.5		dB
NF	Noise Figure	I _C = 5mA ; V _{CE} = 6V;f= 1.0GHz		1.5	2	dB

◆ h_{FE} Classification

Marking	B	C	D
h _{FE}	90-130	120-180	170-250

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