

isc Silicon NPN RF Transistor
BFR183W
DESCRIPTION

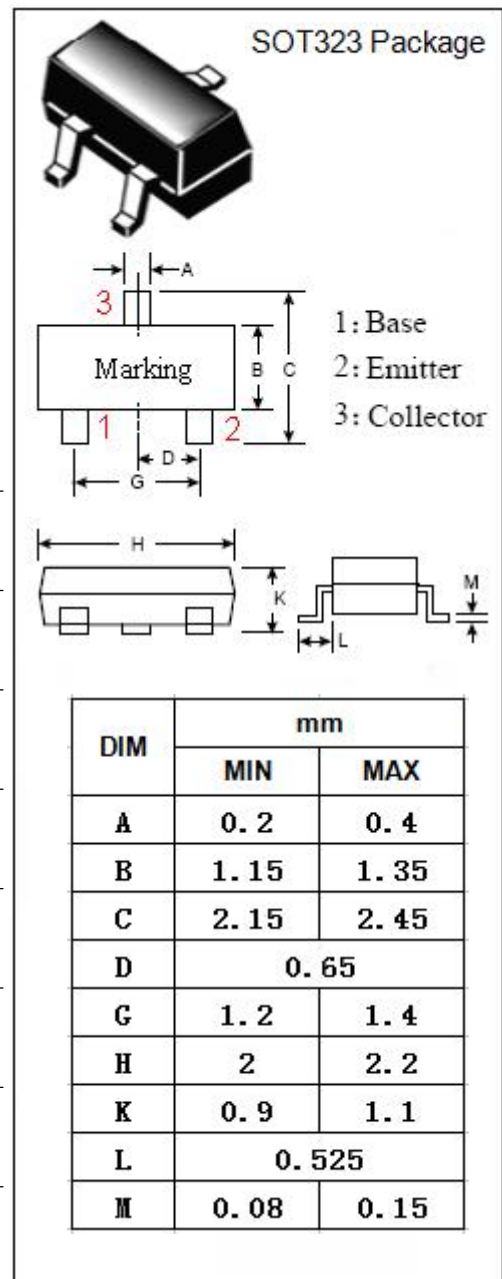
- High Power Gain
- High Current Gain Bandwidth Product
- Low Noise Figure
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for RF frontend in wideband applications in the GHz range, such as analog and digital cellular telephones, cordless telephones(CT1, CT2, DEC, etc.).

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	V
I _C	Collector Current-Continuous	65	mA
P _C	Collector Power Dissipation @T _C =25°C	0.15	W
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
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 1mA ; I _B = 0	12			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 10V; I _E = 0			0.1	uA
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; f= 1GHz		8		GHz
C _{re}	Feedback Frequency	I _E = 0 ; V _{CB} = 6V; f= 1MHz		0.4	0.7	pF
S _{21e} ²	Insertion Power Gain	I _C = 20mA ; V _{CE} = 6V; f= 1GHz		12.5		dB
NF	Noise Figure	I _C = 5mA ; V _{CE} = 6V; f= 0.9GHz		1.5	2.0	dB

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