isc Silicon NPN RF Transistor BFR183

DESCRIPTION

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

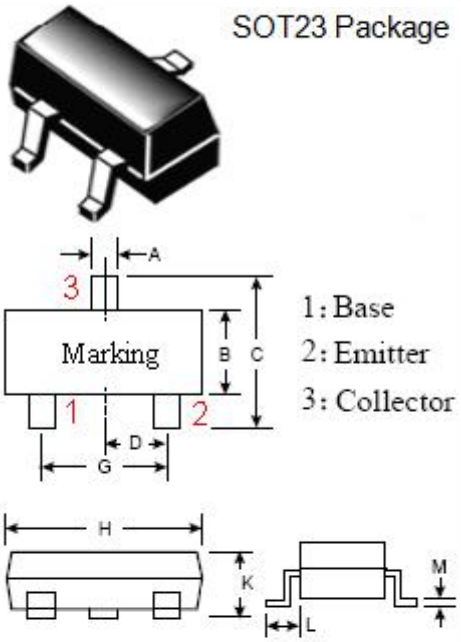
APPLICATIONS

- 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℃)

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℃	0.2	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

SOT23 Package



DIM	mm	
	MIN	MAX
A	0.3	0.5
B	1.2	1.4
C	2.25	2.55
D	0.95	
G	1.8	2
H	2.8	3
K	0.9	1.15
L	0.55	
M	0.08	0.15

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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}= 10V; f= 1MHz		0.65		pF
$\|S_{21e}\|^2$	Insertion Power Gain	I_C= 20mA ; V_{CE}= 6V; f= 1GHz		12		dB
NF	Noise Figure	I_C= 5mA ; V_{CE}= 6V; f= 0.9GHz		1.6		dB