isc Silicon NPN RF Transistor BFR182TW

DESCRIPTION

- Low Voltage Use
- Ultra Super Mini Mold Package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

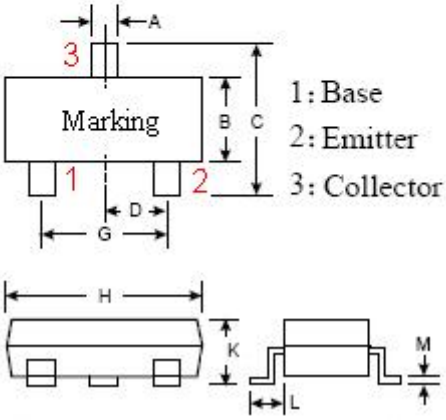
APPLICATIONS

- Designed for use in low noise and small signal amplifiers from VHF band to UHF band

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	15	V
V_{CEO}	Collector-Emitter Voltage	10	V
V_{EBO}	Emitter-Base Voltage	2	V
I_C	Collector Current-Continuous	35	mA
P_C	Collector Power Dissipation @T_C=25℃	200	mW
T_J	Max.Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

SOT-323 package



DIM	mm	
	MIN	MAX
A	0.2	0.4
B	1.15	1.35
C	2.15	2.45
D	0.65	
G	1.2	1.4
H	2	2.2
K	0.9	1.1
L	0.525	
M	0.08	0.15

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified, Pulse Measurement PW ≤ 350 μs, Duty Cycle ≤ 2 %

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{CBO}	Collector Cutoff Current	V_{CB}= 10V; I_E= 0			0.1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 1V; I_C= 0			1	μA
h_{FE}	DC Current Gain	I_C=5mA ; V_{CE}= 6V	50			
f_T	Current-Gain—Bandwidth Product	I_C=5mA ; V_{CE}= 3V ; f= 2GHz		8	8.5	GHz
C_{re}	Feed-Back Capacitance	I_E= 0 ; V_{CB}=10V;f= 1.0MHz		0.65	1	pF
$\|S_{21e}\|^2$	Insertion Power Gain	I_C= 5mA ; V_{CE}= 3V;f= 2.0GHz		5.5		dB
NF	Noise Figure	I_C= 5mA ; V_{CE}= 3V;f= 2.0GHz		2.0		dB