

isc Silicon NPN RF Transistor

BFR182TW

DESCRIPTION

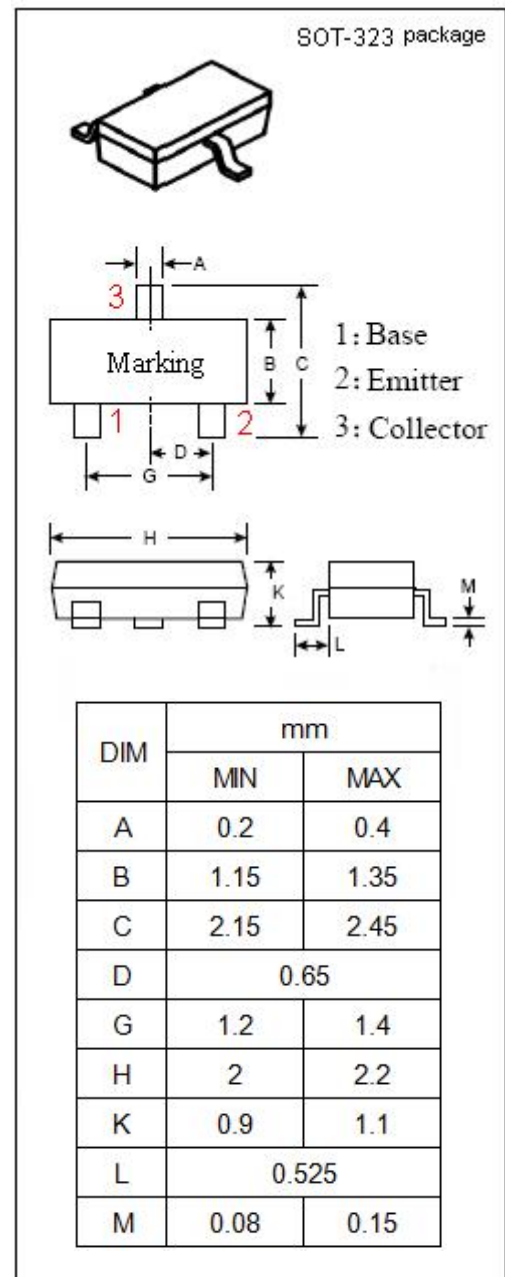
- Low Voltage Use
- Ultra Super Mini Mold Package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

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

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 @ $T_c=25^\circ\text{C}$	200	mW
T_J	Max.Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



isc Silicon NPN RF Transistor

BFR182TW

ELECTRICAL CHARACTERISTICS

T_c=25°C 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	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 1V; I _C = 0			1	μ A
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

NOTICE:

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.