

isc Silicon NPN RF Transistor

BFR182TW

DESCRIPTION

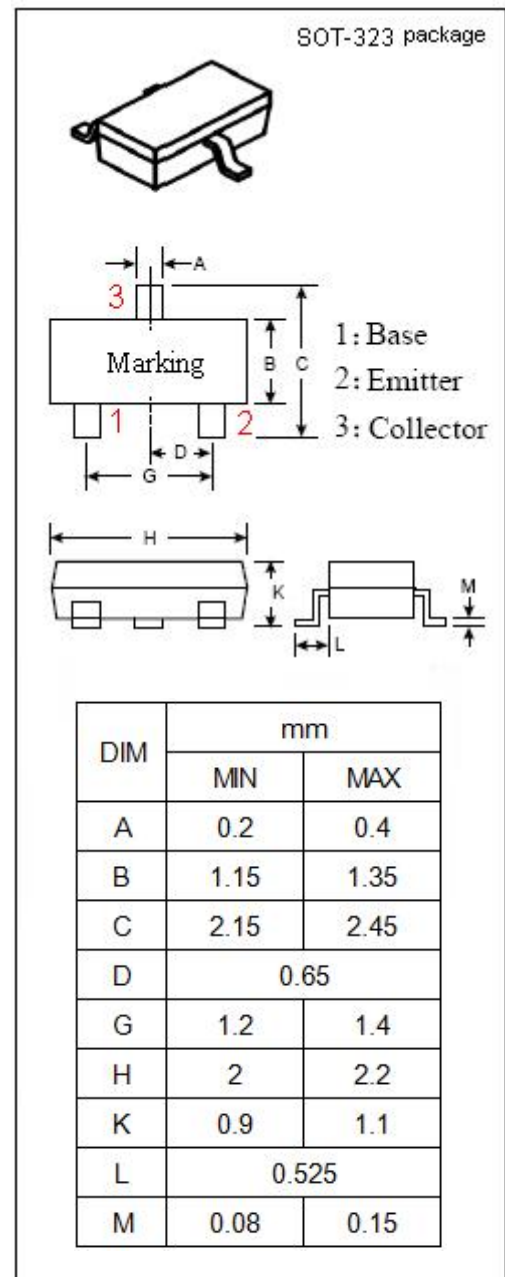
- Low Voltage Use
- Ultra Super Mini Mold Package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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	$^\circ\text{C}$



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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 _{CB0}	Collector Cutoff Current	V _{CB} = 10V; I _E = 0			0.1	μ A
I _{EB0}	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

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