

isc Silicon NPN RF Transistor
BFR520
DESCRIPTION

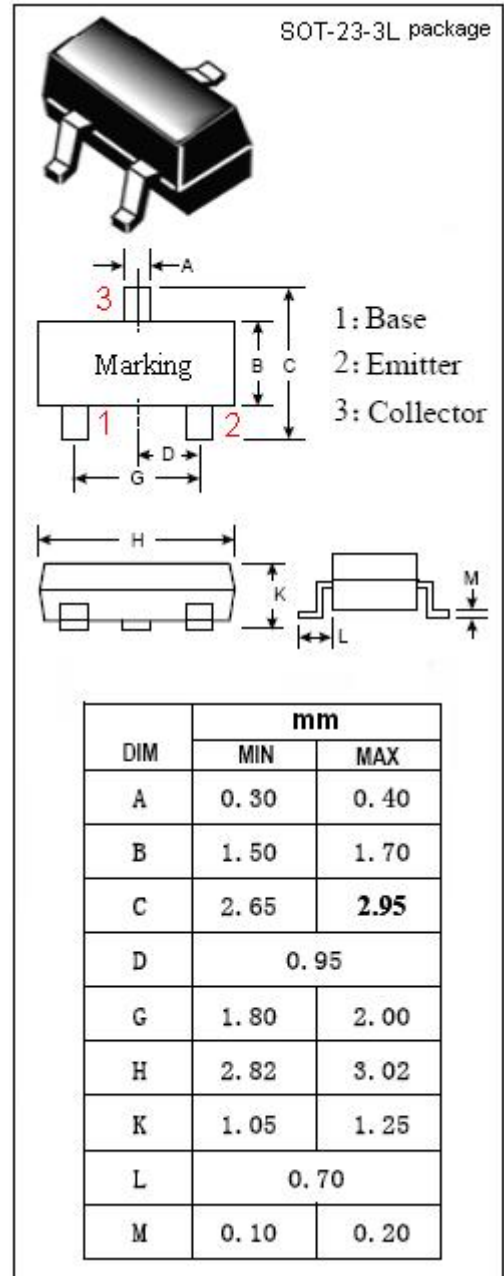
- High Power Gain
- High Current Gain Bandwidth Product
- Low Noise Figure
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for RF frontend in wideband applications in the GHz range, such as analog and digital cellular telephones, cordless.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	20	V
V_{CES}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	2.5	V
I_C	Collector Current-Continuous	70	mA
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.3	W
T_J	Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



isc Silicon NPN RF Transistor
BFR520
ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I _{CB0}	Collector Cutoff Current	V _{CB} = 6V; I _E = 0			0.05	μ A
h _{FE}	DC Current Gain	I _C = 20mA ; V _{CE} = 6V	60		250	
f _T	Current-Gain—Bandwidth Product	I _C = 20mA ; V _{CE} = 6V; f= 1GHz		9		GHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 6V; f= 1MHz		0.5		pF
PG	Power Gain	I _C = 20mA ; V _{CE} = 6V; f= 900MHz		15		dB
PG	Power Gain	I _C = 20mA ; V _{CE} = 6V; f= 2GHz		9		dB
S _{21e} ²	Insertion Power Gain	I _C = 20mA ; V _{CE} = 6V; f= 900MHz	13	14		dB
NF	Noise Figure	I _C = 5mA ; V _{CE} = 6V; f= 900MHz		1.1	1.6	dB
NF	Noise Figure	I _C = 20mA ; V _{CE} = 6V; f= 900MHz		1.6	2.1	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.