

isc Silicon NPN RF Transistor
2SC5218
DESCRIPTION

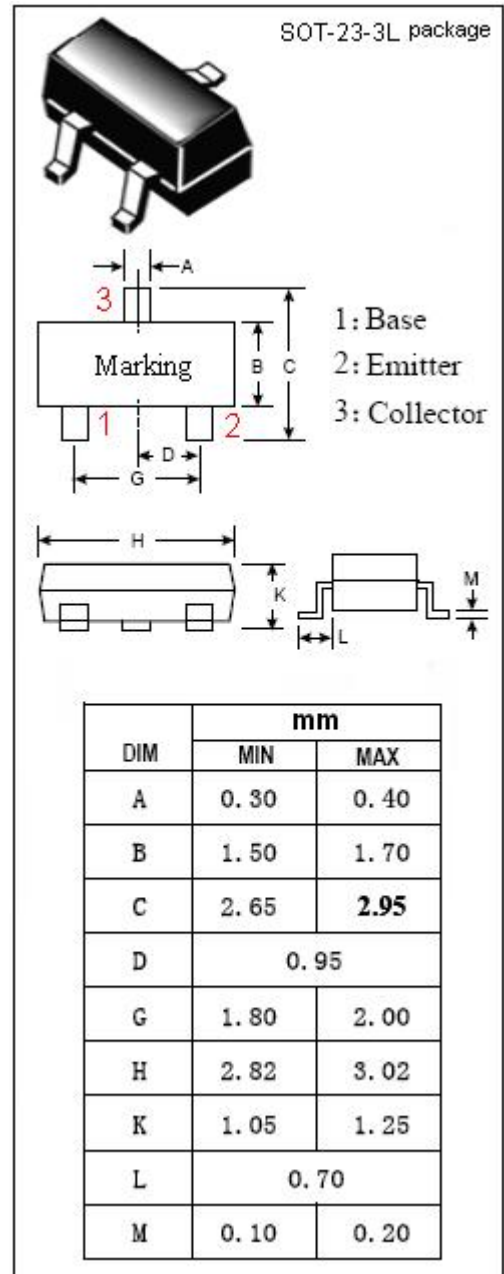
- High Gain Bandwidth Product
 $f_T = 9 \text{ GHz TYP.}$
- High Gain, Low Noise Figure
 $PG = 13.0 \text{ dB TYP., NF} = 1.2 \text{ dB TYP @ } f = 900 \text{ MHz}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in VHF ~ UHF amplifiers.

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	9	V
V_{EBO}	Emitter-Base Voltage	1.5	V
I_c	Collector Current-Continuous	50	mA
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.15	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 10 μ A ; I _E = 0	15			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 12V; I _E = 0			1	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 9V; R _{BE} = ∞			1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 1.5V; I _C = 0			10	μ A
h _{FE}	DC Current Gain	I _C = 20mA ; V _{CE} = 5V	50		250	
f _T	Current-Gain—Bandwidth Product	I _C = 20mA ; V _{CE} = 5V	6.0	9.0		GHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 5V;f= 1.0MHz		0.8	1.4	pF
PG	Power Gain	I _C = 20mA ; V _{CE} = 5V;f= 900MHz	10	13		dB
NF	Noise Figure	I _C = 5mA ; V _{CE} = 5V;f= 900MHz		1.2	2.5	dB

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