

DESCRIPTION

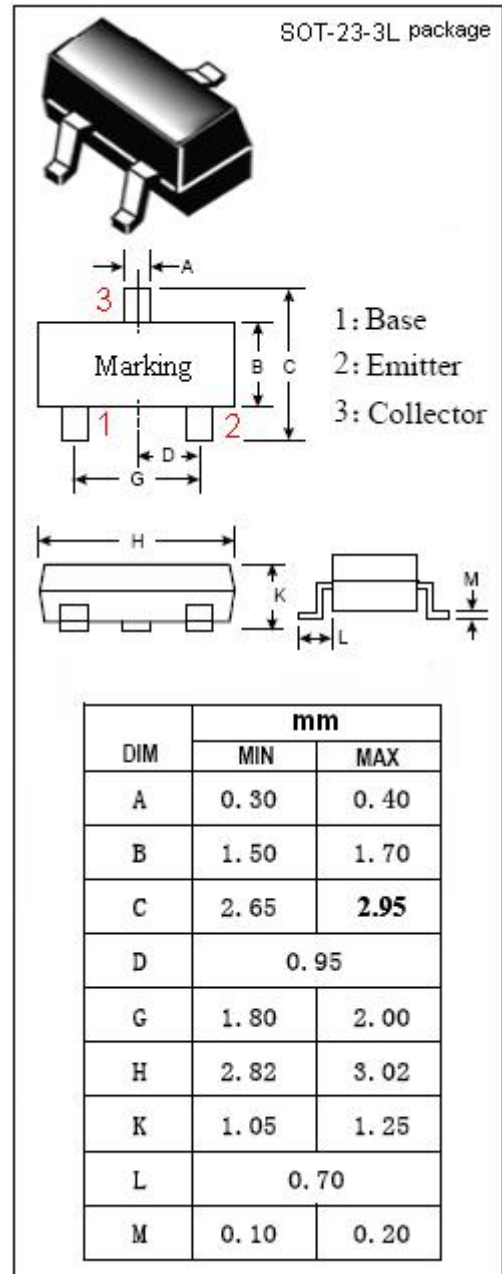
- High Gain Bandwidth Product
 $f_T = 9 \text{ GHz TYP.}$
- High power gain and low noise figure ;
 $PG = 13 \text{ dB TYP.}, NF = 1.1 \text{ dB typ. @ } f = 900 \text{ MHz}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in UHF ~ VHF wide band amplifier.

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	75	mA
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.7	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN RF Transistor
2SC5772
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	80		160	
f _T	Current-Gain—Bandwidth Product	I _C = 20mA ; V _{CE} = 5V ; f= 1 GHz	6	9		GHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 5V ; f= 1.0MHz		0.9	1.5	pF
C _{re}	Reverse Transfer Capacitance	I _E = 0 ; V _{CB} = 5V ; f= 1.0MHz		0.7		pF
S _{21e} ²	Insertion Power Gain	I _C = 20mA ; V _{CE} = 5V ; f= 1GHz		11.8		dB
PG	Power Gain	I _C = 20mA ; V _{CC} = 5V ; f= 900MHz	9.5	13		dB
NF	Noise Figure	I _C = 5mA ; V _{CC} = 5V ; f= 900MHz		1.1	1.9	dB

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