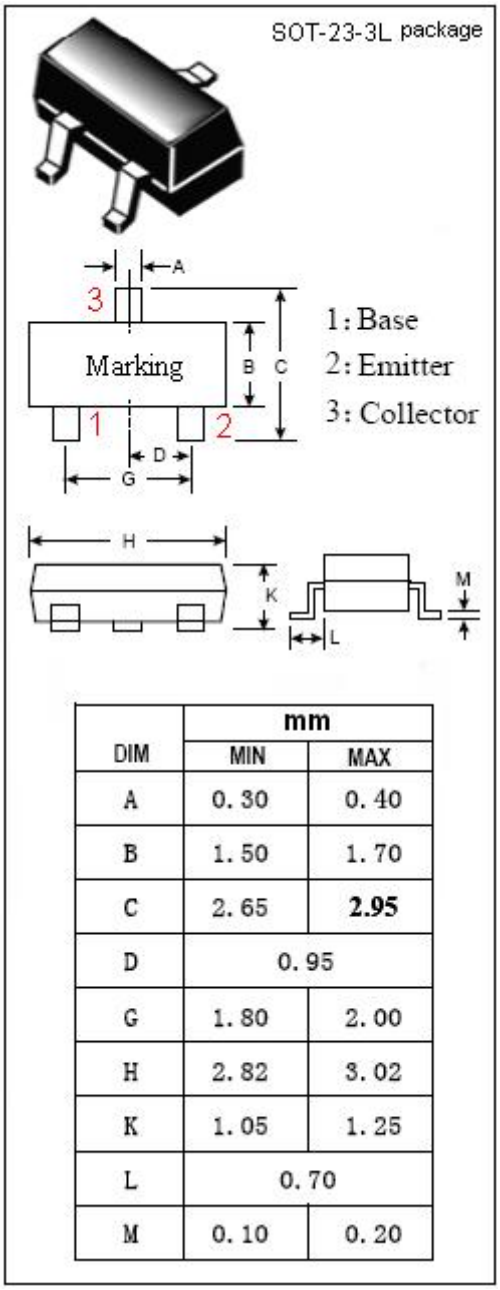
isc Silicon NPN RF Transistor 2SC4197

DESCRIPTION

- Low Noise
- High Gain Bandwidth Product
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for UHF frequency converter, wide band amplifier applications.



DIM	mm MIN	mm MAX
A	0.30	0.40
B	1.50	1.70
C	2.65	**2.95**
D	0.95	
G	1.80	2.00
H	2.82	3.02
K	1.05	1.25
L	0.70	
M	0.10	0.20

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	25	V
V_{CEO}	Collector-Emitter Voltage	13	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current-Continuous	50	mA
P_C	Collector Power Dissipation @T_C=25℃	0.15	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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	25			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 20mA ; I_B= 4mA			0.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 15V; I_E= 0			0.1	μ A
I_{CEO}	Collector Cutoff Current	V_{CE}= 13V; R_{BE}= ∞			10	μ A
I_{EBO}	Emitter Cutoff Current	V_{EB}= 3V; I_C= 0			0.3	μ A
h_{FE}	DC Current Gain	I_C= 5mA ; V_{CE}= 5V	50		180	
f_T	Current-Gain—Bandwidth Product	I_C= 20mA ; V_{CE}= 5V	3.0	3.8		GHz
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V;f= 1.0MHz		0.85	1.3	pF
CG	Conversion Gain	I_C= 0.8mA ; V_{CC}= 5V; f_{in}= 900MHz f_{osc}= 930MHz(-5dB), f_{out}= 30MHz		19		dB
NF	Noise Figure			8		dB