New Jersey Semi-Conductor Products, Inc.

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Silicon NPN RF Transistor — MMBR931L

DESCRIPTION

- Low Noise Figure
  NF = 4.3 dB TYP. @V_{CE} = 1 V, I_E = 0.25 mA, f = 1 GHz

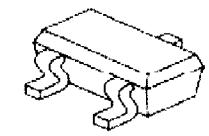
APPLICATIONS

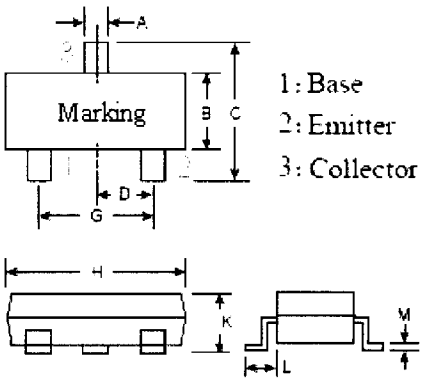
- Designed primarily for use in low-power amplifiers to 1.0 GHz ,Ideal for pagers and other battery operated systems where power consumption is critical.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	10	V
V_{CEO}	Collector-Emitter Voltage	5	V
V_{EBO}	Emitter-Base Voltage	2	V
I_C	Collector Current-Continuous	5	mA
P_C	Collector Power Dissipation @T_C= 75℃	0.15	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

SOT-23 package





DIM	mm MIN	mm MAX
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
G	1.78	2.05
H	2.65	3.05
K	1.10	1.30
L	0.45	0.61
M	0.076	0.178

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 0.1mA ; I_B= 0	5			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 0.01mA ; I_E= 0	10			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 0.1mA ; I_C= 0	2			V
I_{CBO}	Collector Cutoff Current	V_{CB}= 5V; I_E= 0			50	nA
h_{FE}	DC Current Gain	I_C= 0.25mA ; V_{CE}= 1V	50		150	
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 1V; f= 1MHz			0.5	pF
G_{NF}	Power Gain at Optimum Figure	I_E= 0.25mA ; V_{CE}= 1V; f= 1GHz		10		dB
NF	Noise Figure	I_E= 0.25mA ; V_{CE}= 1V; f= 1GHz		4.3		dB

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