

isc Silicon NPN RF Transistor

MMBR901L

DESCRIPTION

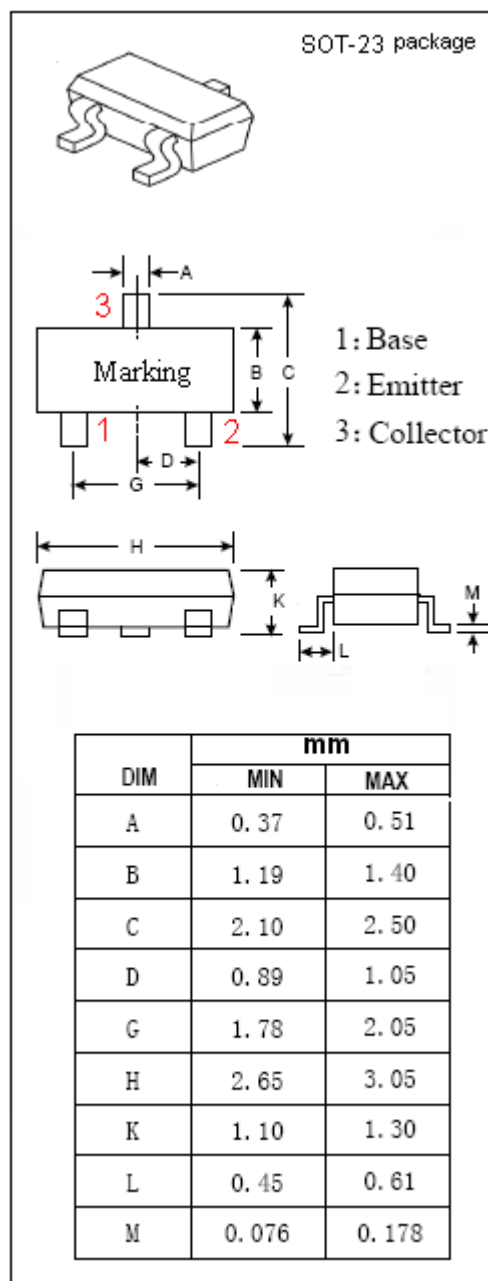
- Low Noise
- High Power Gain-
 $G_{pe} = 12.0 \text{ dB TYP. @ } f = 1 \text{ GHz}$

APPLICATIONS

- Designed for use in high gain ,low noise , small signal amplifiers for operation up to 2.5GHz.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	25	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	2	V
I_C	Collector Current-Continuous	30	mA
P_C	Collector Power Dissipation @ $T_C=75^\circ\text{C}$	0.3	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN RF Transistor**MMBR901L****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 1mA ; I _B = 0	15			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 0.1mA ; I _E = 0	25			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 0.1mA ; I _C = 0	2			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 15V; I _E = 0			0.05	μ A
h _{FE}	DC Current Gain	I _C = 5mA ; V _{CE} = 5V	50		200	
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f= 1MHz			1.0	pF
f _T	Current-Gain—Bandwidth Product	I _C = 15mA ; V _{CE} = 10V; f= 1GHz		3.8		GHz
G _{pe}	Common-Emitter Amplifier Gain	I _C = 5mA ; V _{CC} = 6V; f= 1GHz		12		dB
NF _{min}	Minimum Noise Figure	I _C = 5mA ; V _{CE} = 6V; f= 1GHz		1.9		dB