




DESCRIPTION

The MMBR901LT1/MRF9011LT1 are low noise, high gain, discrete silicon bipolar transistors housed in low cost plastic packages.

IMPORTANT: For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

KEY FEATURES

-  High FTau-3.8GHz
-  Low noise-1.8dB@1GHz
-  Low cost SOT23/SOT143 package

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

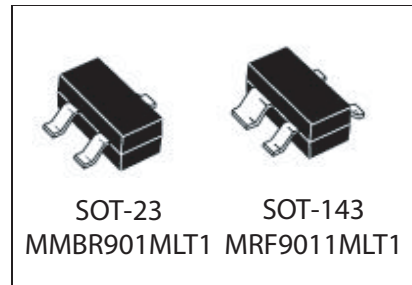
Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	25	V
V _{CEO}	Collector-Emitter Voltage	15	V
V _{EBO}	Emitter-Base Voltage	2.0	V
I _C	Device Current	30	mA
P _{DISS}	Power Dissipation	375	mW
T _J	Junction Temperature	150	C
T _{STG}	Storage Temperature	-55 to +150	C

APPLICATIONS/BENEFITS

-  LNA, Oscillator, Pre-Driver

THERMAL DATA

R _{TH(j-c)}	Junction-Case Thermal Resistance	250	C/W
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STATIC ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)

Symbol	Test Conditions				Units
		Min.	Typ.	Max.	
BV _{CBO}	I _C = .1mA I _E = 0	25			V
BV _{CEO}	I _C = 1.0mA I _B = 0	15			V
I _{CBO}	V _{CB} = 15V I _E = 0			50	nA
h _{FE}	V _{CE} = 5 V I _C = 5 mA	30		200	

DYNAMIC ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)

Symbol	Test Conditions				Units
		Min.	Typ.	Max.	
C _{CB}	V _{CB} = 10 V f = 1.0 MHz		0.55		pF
FTau	V _{CE} = 10 V I _C = 15 mA f = 1.0 GHz		3.8		GHz
NF _{min}	V _{CE} = 10 V I _C = 5 mA f = 1.0 GHz		1.8		dB
GNF	V _{CE} = 10 V I _C = 5 mA f = 1.0 GHz		13.5		dB
S ₂₁ ²	V _{CE} = 6 V I _C = 5 mA f = 1.0 GHz		12		dB