Microsemi

RF PRODUCTS DIVISION

MMBR5179LT1

RF & MICROWAVE TRANSISTORS

PRELIMINARY

DESCRIPTION

The MMBR5179LT1 is a 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-1.4GHz
- Low noise-4.5dB@200MHz
- Low cost SOT23 package

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	2.5	V
I_C	Device Current	50	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



SOT-23
MMBR5179LT1

THERMAL DATA

$R_{TH(j-c)}$	Junction-Case Thermal Resistance	200	C/W

STATIC ELECTRICAL SPECIFICATIONS (TCASE = 25°C)

Symbol	Test	Conditions	Min.	Typ.	Max.	Units
BV_{CBO}	I_C = .01mA	I_E = 0	20			V
BV_{CEO}	I_C =3mA	I_B = 0	12			V
I_{CBO}	V_{EB} = 15V	I_E = 0			0.02	uA
h_{FE}	V_{CB} = 1 V	I_C = 3 mA	25			

DYMANIC ELECTRICAL SPECIFICATIONS (TCASE = 25°C)

Symbol	Test	Conditions	Min.	Typ.	Max.	Units
C_{CB}	V_{CB} = 10 V	**f** = 1.0 MHz			1.0	pF
FTau	V_{CE} = 6 V	Ic= 5 mA **f** = 200MHz		1.4		GHz
NF	V_{CE} = 6 V	Ic= 1.5 mA **f** = 200MHz		4.5		dB
G_{pe}	V_{CE} = 6 V	Ic= 5 mA **f** = 200MHz		14		dB

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