Lexiwave Technology (Hong Kong) Ltd. <u>www.lexiwave.com</u> LW3188 RF and Microwave Low Noise

NPN Transistor



Subject to change without prior notice

Rev 2.0, August 2013

1.0 Features

- Low noise amplifier at VHF, UHF and Microwave bands.
- Low Noise and High Gain
- NF = 1.5 dB TYP., $G_a = 9 \text{ dB}$ TYP. @ VCE = 10 V, IC = 7 mA, f = 1GHz
- High Power Gain
- MAG = 11 dB TYP. @ Vce = 10 V, Ic = 20 mA, f = 1 GHz



2.0 Absolute Maximum Ratings Ta = 25^oC

Parameter	Symbol	Value	Units
Collector to base voltage	V _{CBO}	18	V
Collector to emitter voltage	V _{CBO}	10	V
Emitter to base voltage	V _{EBO}	2.5	V
Collector current (DC)	I _C	80	mA
Total power dissipation	PT	0.08	W
Junction temperature	T _i	120	O ₀
Storage temperature range	T _{sg}	-40 to +125	

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3.0 Electrical Characteristics Ta = 250C

Parameter	Symbol	Test Conditions	Min	Тур	Max	Units
Collector Cutoff	I _{CBO}	V_{CB} =10V, I_{E} =0			1	uA
Current						
Collector to emitter	I _{CBO}	$V_{CB} = 10V, I_{C} = 0$			1	uA
voltage						
DC Current Gain	h _{FE}	V_{CE} = 10V, IC = 20mA	40	100	250	
Gain Bandwidth	f _T	V _{CE} = 10V, IC = 20mA		5		GHz
Product						
Feed-Back	C _{re}	V _{CB} =10V, I _E =0,		0.7	1.5	pF
Capacitance		f=1.0MHz				-
Insertion Power	S ₂₁ e 2	V _{CE} = 10V, IC= 20mA,		8		dB
Gain		f=1.0GHz				
Noise Figure	NF	V_{CE} 10V, IC = 7mA,		1.5	2.5	dB
-		f=1.0GHz				

4.0 IMPORTANT NOTICE

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