

WPC is a versatile RF bipolar process providing excellent RF functionality at low cost. Features such as high value poly resistors, nitride capacitors and two layer metal allow low current circuits to be built with high packing densities,

Key parameters (minimum geometry device)	
	NPN
fT	7 GHz at Ic=0.4 mA, Vce=2V
CJC	10 fF
CJE	14fF
Bvceo	6V
Propagation Delay	125 ps

nnp parameters (1.5 x 1.5 um emitter)			
parameter	Condition	Value	Units
fT	Ic=0.3mA Vce=2V	7	GHz
HFE	Ic=10µA Vce=2V	100	
VAF		30	V
BVCEO	Ic=1µA	>13.5	V
BVCBO	Ic=5µA	>6	V
CJE	Vbe=0	14	fF
CJC	Vbc=0	10	fF
CJS	Vcs=0	17	fF

Applications

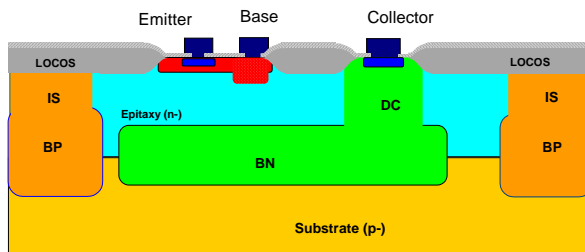
- Low current circuits
- Synthesizers
- Pagers

Key Process Feature

- 1.8nF/sq µm MIS capacitors
- High value polysilicon resistor
- Very low leakage currents
- Low flicker noise

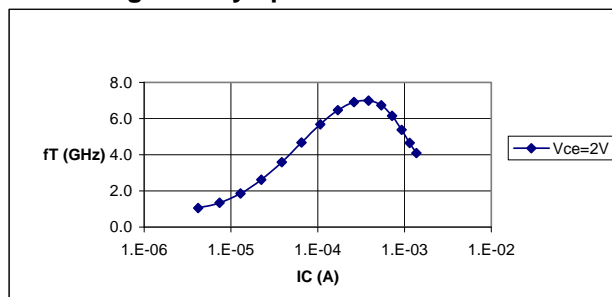
Lateral npn parameters			
parameter	Condition	Value	Units
fT	Vce=2V	100	MHz
HFE	Ic=10µA Vcb=0V	60	
VAF		17	V
BVCEO	Ic=1µA	>6	V

nnp cross section



Resistor Values		
parameter	Value	Units
Poly	3.2 ± 0.5	kΩ
Base	550 ± 50	Ω
PR	67.5 ± 7.5	Ω

Minimum geometry npn fT curve



Design Rules		
Feature	Min µm	Spacing µm
Emitter	1.0 x 2.5 or 1.5 x 1.5	
Poly (EP) resistor	1.5	2.0
Base and PR resistor	3.0	1.5
Contact	1.0 x 2.5 or 1.5 x 1.5	
1st Layer metal	2.0	2.0
2 nd layer metal	2.0	2.0