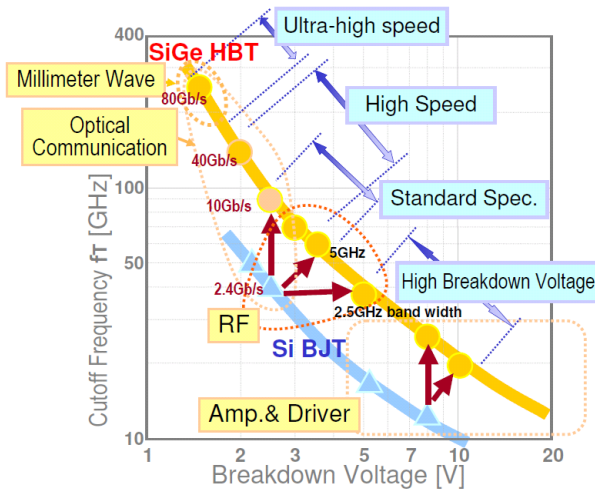


- Total support from design to mass production -

- We provide total processes from IC design to mass production including low volume.
- Super-high frequency SiGe HBT ($f_T \approx \sim 210\text{GHz}$) is lined up.
- Best for high-frequency RF front-end IC, low-noise amplifier, 10-40 GHz high-speed optical communication and micro/millimeter-wave radar, which are difficult to achieve in CMOS.

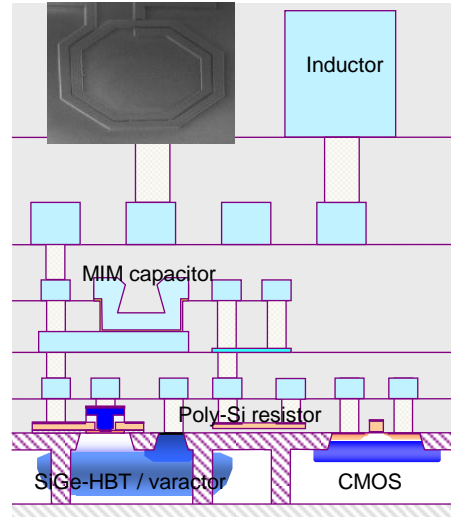
Specifications of HBTs and applications

- Cut-off frequency and breakdown voltage product is highly improve by SiGe HBT.
- Maximum cut-off frequency up to 210 GHz is lined up.



Variety of passive elements (cross section)

- Precision poly-Si resistance, MIM capacitor, BJT/MOS varactor, Schottky diode and inductor.



SiGe BiCMOS technology lineup

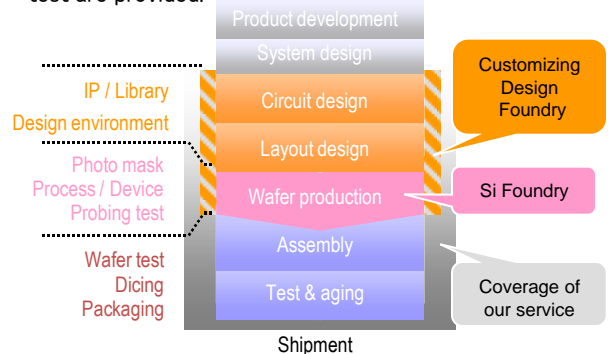
Process generation	BJT	SiGe HBT			
	MOS	6 GHz / 30 V	15 GHz / 10 V	f_T Peak / BV _{cei} 90GHz/2.5V 65GHz/3.5V	137GHz/2.0V 62GHz/3.0V
0.25 μm Al 4 layers 1.0 μm pitch	23V + 5.0V				
	5.0V				
	3.3V	B20M33 TBD	B90M50	B90M33	B140M33
0.18 μm Al 6 layers 0.5 μm pitch	2.5V	SOI	B90M25	B140M25	
	1.8V + 3.3V	Bulk		B140M00	B200M00

Application example

- Front-end LSI for 10GHz/40GHz optical communication
- Tester IC
- Medical purpose IC

Coverage of our service

- Processes from the IC design to the assembly test are provided.



- Any other trademarks or trade names mentioned are the property of their respective owners.
- Design & Specifications are subject to change without notice.
- Export and re-export of the information in this document, related hardware, software, systems, or technology are strictly prohibited except in compliance with all applicable export laws and regulations.

For more information about this product.

■ URL

<http://www.hitachi.co.jp/Div/mdd/english/index.html>

■ Inquiry

<http://www.hitachi.co.jp/Div/mdd/english/inquiry/index.html>