

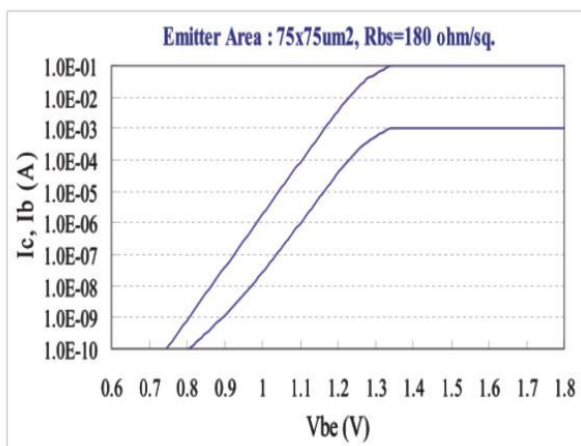


VPEC BiFET Epi Material Performance

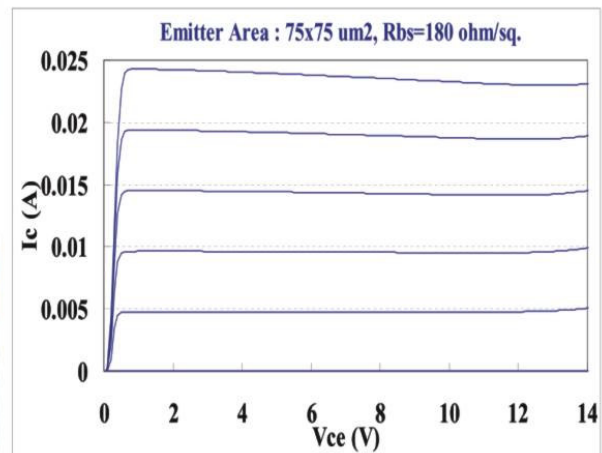
Features:

- Combine HBT and FET device (MESFET+HBT or PHEMT+HBT) in one structure for improving GaAs IC integration level and functionality.
- Same device performance in BiFET as in HBT and FET individual epi wafers.
- Integrate PA, switch, biasing circuit and control logic in the same circuit and achieve low turn on and high PAE for lower power consumption.
- Excellent wafer uniformity up to 6 inch, $\sigma < 2\%$ for key parameters. β , R_{bs} , R_s , N_s , mobility etc.
- Complete HBT and FET device DC performance characterization and measurement capability including quick lot HBT and FET device process.
- Production qualified HBT and FET device epi wafer technology.
- Quick R&D response and high volume production available.

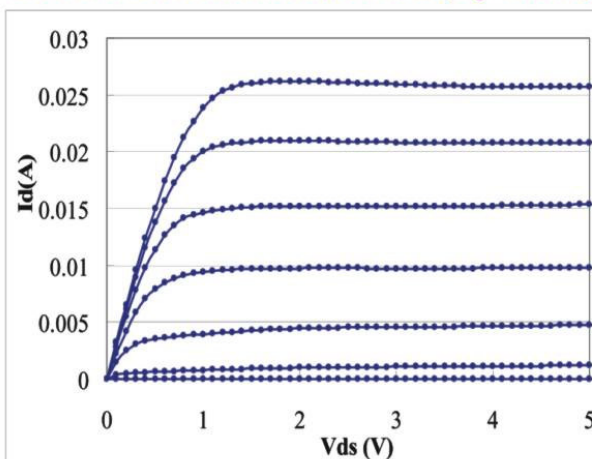
InGaP HBT Performance in BiFET



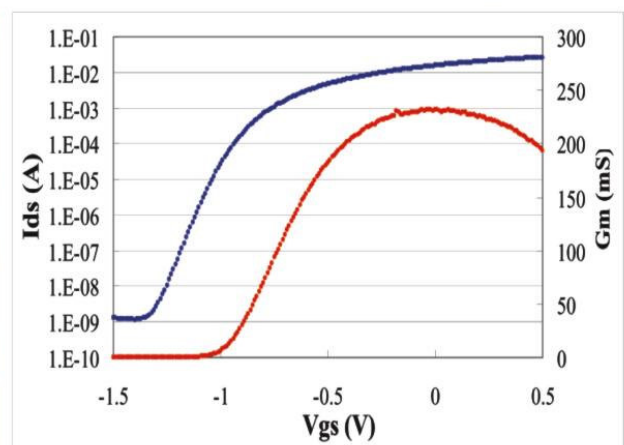
InGaP HBT Performance in BiFET



PHEMT Performance in BiFET ($L_g=0.5\mu\text{m}$)



PHEMT Performance in BiFET ($L_g=0.5\mu\text{m}$)



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