EXCELICS **SEMICONDUCTOR, INC.**

ADVANTAGES
OF
EXCELICS POWER FETS

- **High P-1: Typical Past-P-1<0..7dBm.**
- **High Gain, High f_t (f_{max}) and High PAE.**
- **High IP3: Typical 13dB above P-1 for GaAs FETs & 8dB above P-1 for Hetero-junction FETs.**
- **Excellent Noise Figures, Particularly at Low Frequency.**
- **No or Low Gain Expansion: Typical 0 dB for GaAs FETs & 0-0.3dB for Hetero-junction FETs.**
- **High Gate Breakdown Voltage: Typical at 15-20 Volts.**
- **Wide Range Product Offering: 0.1-10W over 0.1-80GHz.**
- **Good Reliability and Tracibility.**

FEATURES

- **Advanced MBE wafers designed for low distortion, high gain, high efficiency. and high reliability (GaAs, AlGaAs/GaAs, AlGaAs/InGaAs).**
- **N+ and RTP alloying for better ohmic and reliability.**
- **Self-aligned double recessed gate for power FETs**
- **0.25 to 0.5 um mushroom gate (with large 1.5um cross-section).**
- **0.7um thick Ti/Pt/Au gate and 1st metal metallizations.**
- **PECVD Si_3N_4 for passivation.**
- **2.5um thick Gold plated air bridge and bonding pads.**
- **Backside Gold plated 1 mil heat sink (PHS) with 1 mil GaAs for high power FETs.**
- **Backside via hole process.**
- **100% automatic D.C. testing with Idss binning.**
- **Serialization number on every device.**