

Quasi-Resonant IC FA5530/31/32

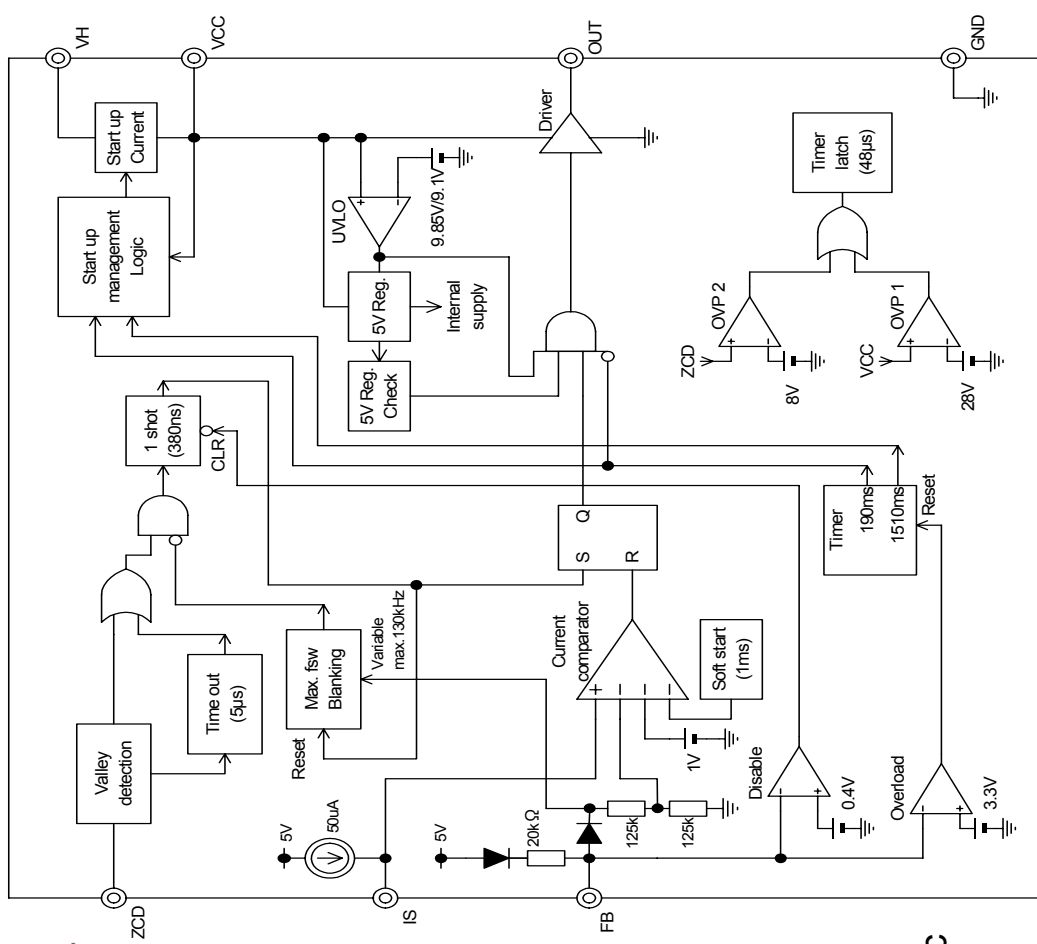


Features

- Internal start-up circuit with 500V rating and low frequency operation achieves **140mW input at no load**.
- **Small Output Capacitance** : Linearly reduced frequency for lighter load causes small ripple voltage.
- Suitable for Low Noise and High Efficiency about 90%
- Line-up of 3 types for maximum frequency and OLP
5530: 65kHz max., 16Vmax.-VCC, Auto-restart OLP
5531: 130kHz max., 28Vmax.-VCC, Auto-restart OLP
5532: 130kHz max., 28Vmax.-VCC, Timer-Latched OLP
- High ability of driving Power MOSFET (High / Low side : 17 ohm / 3.5 ohm) : available to 200W output
- **Vcc rating 28V allows no series regulator for auxiliary winding to clamp Vcc voltage for FA5531/32**.
- 1ms Fixed Soft Start time
- Timer Latched Over-Voltage Protection of 16V/28V Vcc
- 8 pins package (DIP/SO)

Usage : Notebook PC, LCD Monitor, LCD-TV etc.

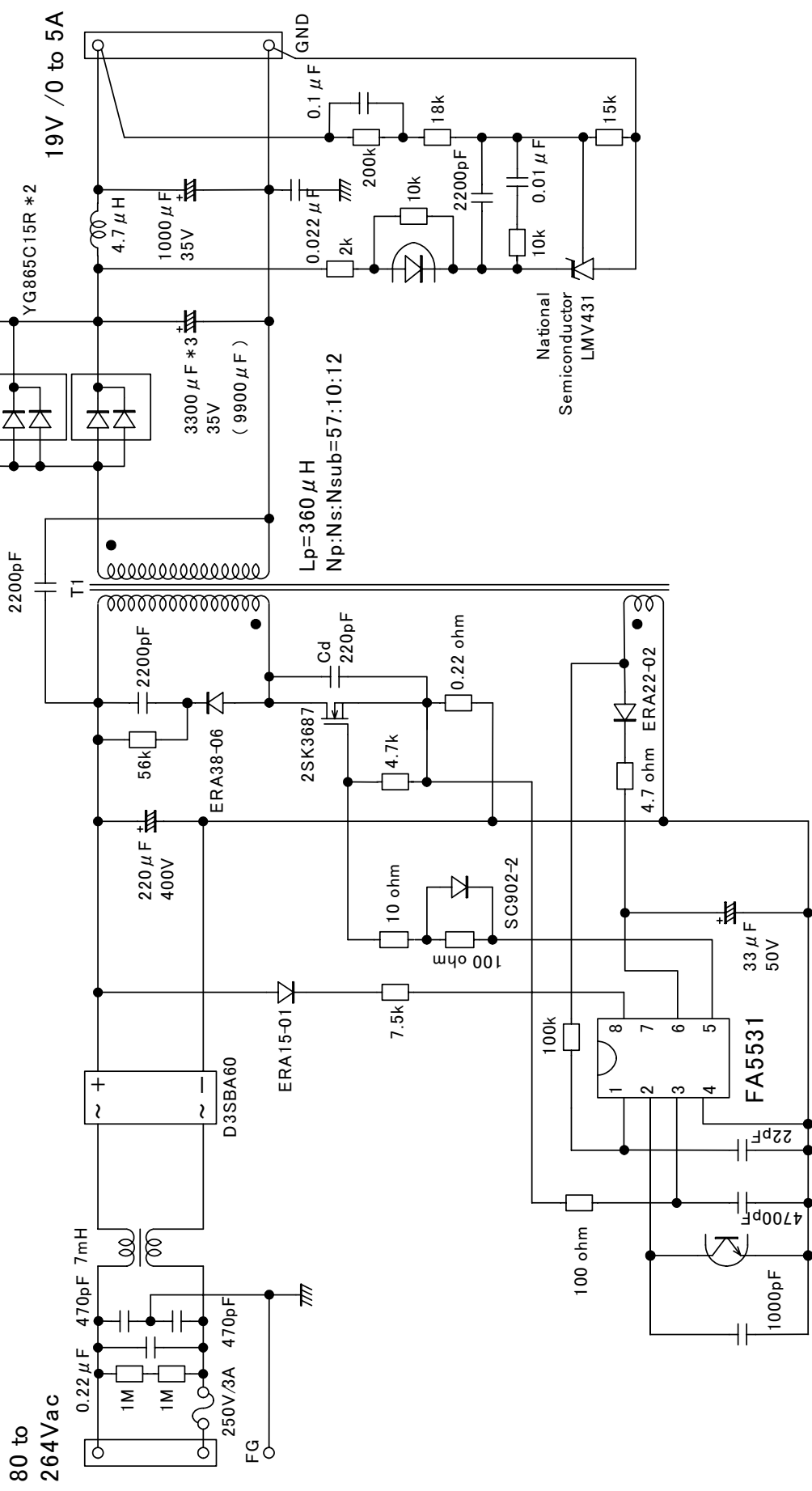
FA5531 Block Diagram



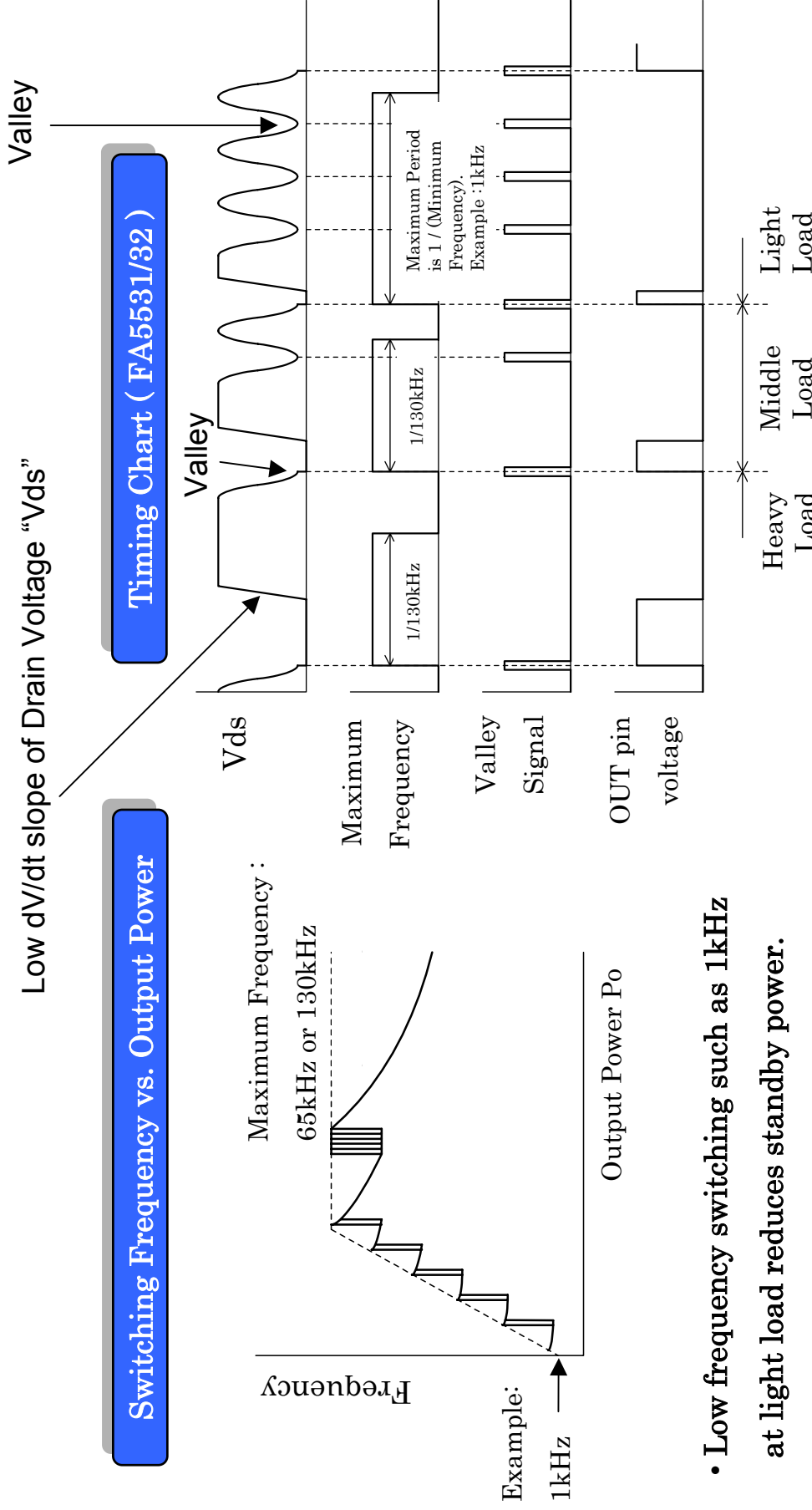
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Application Circuit



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- Low frequency switching such as 1kHz at light load reduces standby power.
- Maximum frequency limits EMI noise and switching Loss.
- Switching at Valley of Vds : Turn-ON Loss and Noise are very small.
- Low dV/dt of Vds at Turn-OFF by a capacitor connected between Drain and Source of Power MOSFET : Turn-OFF Loss and Noise are also very small.

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Demo Board Data

- Demo Board Specification
Input Range : 80Vac to 264Vac
Output Rating : 95W (19V / 5A)
- Demo Board Data
60mW to 140mW at no load, 0.9kHz
Efficiency : 86 to 91% (20W to 95W)
→ satisfies the standard of energy star

