

FB3492 Phase Modulation Controller Array

GENERAL DESCRIPTION

The FB3492 is an application focused tile array intended for phase modulated power supply controller applications. This array, built on our 40 volt technology, consists of customized and general purpose groupings of components to implement the various power supply control circuit blocks. Certain areas, such as the power output section, the oscillator, and the voltage reference are customized to obtain a higher level of performance for these critical circuit functions.

The array has eight high current (2A peak) output transistors to implement four high current, low cross conduction, totem pole type output drivers. The high current capability allows the quick charge and discharge of the gate capacitance of external power MOSFET devices.

High speed emitter function logic circuits can be implemented to achieve fast current sense circuits. A propagation delay of less than 50ns from current sense to output shutdown can be achieved. An oscillator that is capable of operating up to 3MHz and a precision reference with an accuracy of $\pm 1\%$ and a temperature stability of 50 ppm/ $^{\circ}\text{C}$ are examples of the level of performance that can be achieved.

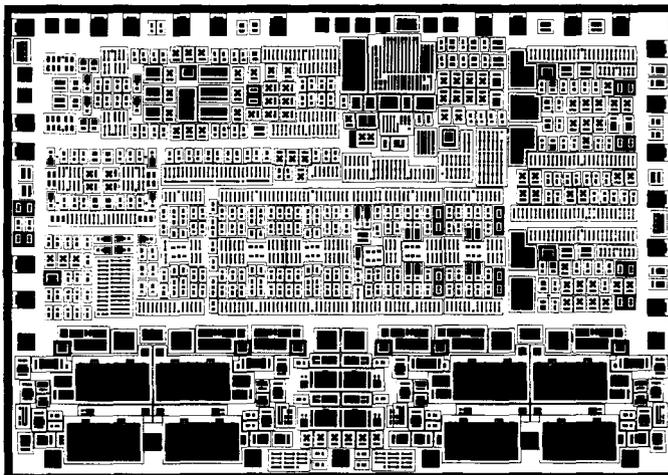
Standard products built on this tile array can be easily modified to create a semi-standard version optimized for a specific customers application.

FEATURES

- Array Optimized for Phase Modulated Power Supply Control Circuits
- High Current (2A) Output Transistors for Fast Output Drivers
- Can Implement all the Circuit Blocks for a High Performance Phase Modulation Controller
- 9 Analog Circuit Blocks and 60 Gate Complexity
- 40 Volt, 400 MHz Technology

ARRAY SUMMARY

NPN Transistors	323
PNP Transistors	131
Power NPN Transistors	8
Schottky Transistors	39
Total Diffused Resistance	580K
Total Implant Resistance	2500K
Total MOS Capacitance	34pF
Total Components	1290
Bond Pads	29
Die Size (mils)	140 x 201



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