MOTOROLA

MCCF33094

Product Preview

Ignition Control Flip-Chip

Designed for automotive ignition applications. The MCCF33094 provides outstanding control of the ignition coil when used with an appropriate Motorola Power Darlington Transistor. Engine control systems utilizing the MCCF33094 exhibit exceptional fuel efficiency and low exhaust emissions. For proper operation, the MCCF33094 requires a single Hall Sensor input signal, which is compared to an accurate internal reference.

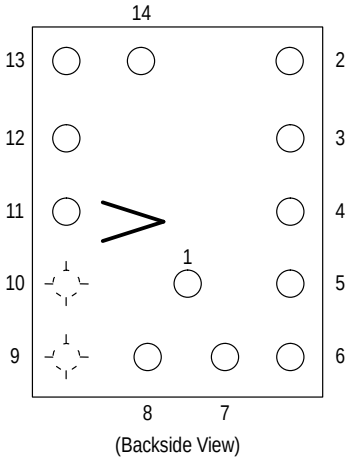
The MCCF33094 utilizes Flip-Chip Technology in which solder bumps, rather than traditional wire bonds, are created to establish mechanical and electrical contact to the chip. This process affords a unique device having improved reliability at elevated operating temperatures.

- Solder Bumped for Flip-Chip Assembly
- External Capacitors to Set Device Timing
- Overvoltage Shutdown Protection
- Auto Start-Up Capability Once Overvoltage Condition Ceases
- Allows for Push Start-Up in Automotive Applications
- Ignition Coil Current Limiting
- Ignition Coil Voltage Limiting
- Bandgap Reference for Enhanced Stability Over Temperature
- Negative Edge Filter for Hall Sensor Input Transient Protection
- Hall Sensor Inputs for RPM and Position Sensing
- – 30°C ≤ T_A ≤ +140°C Ambient Operating Temperature

IGNITION CONTROL FLIP–CHIP

SEMICONDUCTOR TECHNICAL DATA

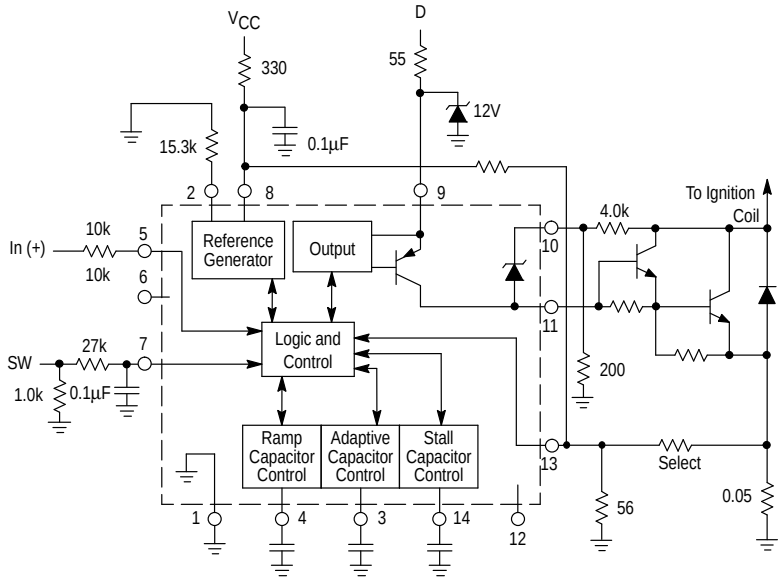
FLIP-CHIP CONFIGURATION



(Backside View)

0.116 inch x 0.091 inch
Backside orientation marking
indicated by arrow oriented as shown

Simplified Block Diagram and Application Circuit



BUMP CONNECTIONS

1. Ground
2. Master Bias
3. Adaptive Capacitor
4. Ramp Capacitor
5. Positive Hall Input
6. N.C.
7. Start
8. Supply
9. Distributor Signal
10. Coil
11. Output
12. Process Test
13. Emitter of Darlington
14. Stall Capacitor

ORDERING INFORMATION

Device	Operating Temperature Range	Package
MCCF33094	T_A = –30° to +140°C	Flip–Chip

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