MOTOROLA

MC79076
MCCF79076

Product Preview

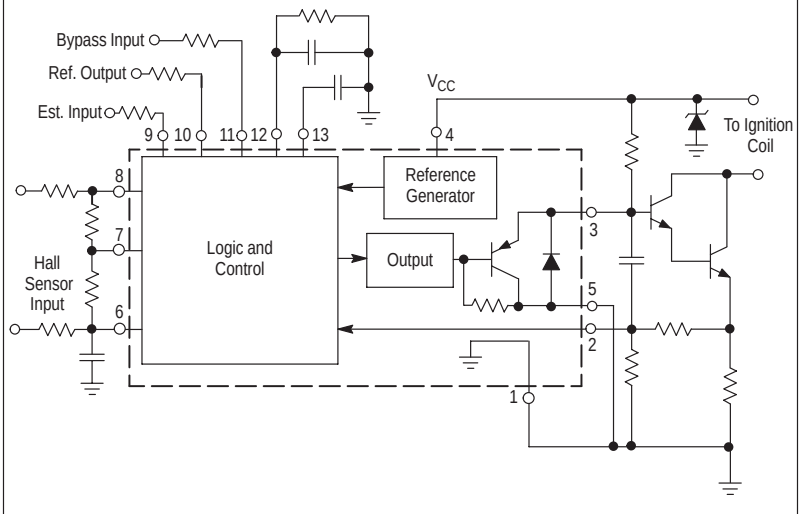
Electronic Ignition Control Circuit

The MCCF79076, in conjunction with an appropriate Motorola Power Darlington Transistor, provides an economical solution for automotive ignition applications. The MCCF79076 offers optimum performance by providing closed loop operation of the Power Darlington in controlling the ignition coil current.

The MCCF79076 incorporates Flip–Chip Technology which involves the formation of solder bumps, rather than traditional wire bonds, to establish mechanical and electrical contact to the semiconductor chip. This process affords a unique device having improved reliability at elevated operating temperatures.

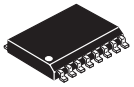
- Solder Bumped for Flip–Chip Assembly
- Ignition Coil Voltage Internally Limited to 375 V
- Coil Current Limiting to 7.5 A
- Output On–Time (Dwell) Control
- Dwell Feedback Control to Sense Coil Variation
- Hall Sensor Input
- – 30°C ≤ T_A ≤ +140°C Ambient Operating Temperature

Simplified Block Diagram and Application Circuit



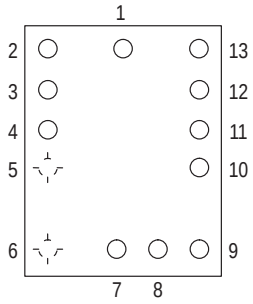
ELECTRONIC IGNITION CONTROL CIRCUIT

SEMICONDUCTOR TECHNICAL DATA



DW SUFFIX
PLASTIC PACKAGE
CASE 751G
(SO–16L)

FLIP–CHIP CONFIGURATION



Top View
(Bump Side)

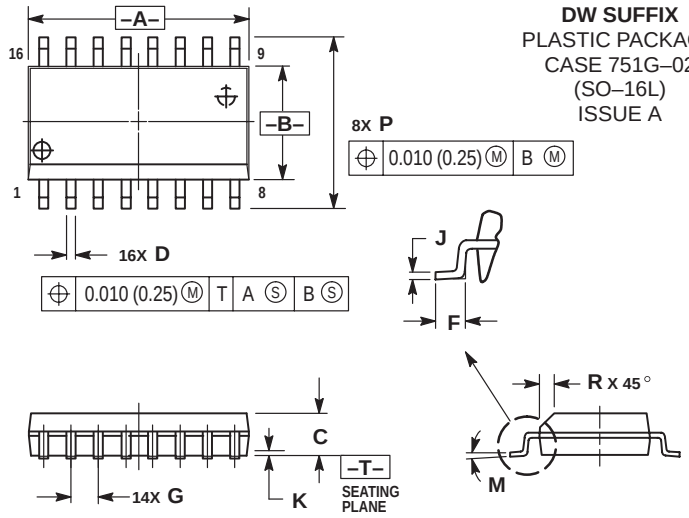
BUMP CONNECTIONS

1. High Ground
2. Output Current Limit
3. Dwell Output
4. Supply
5. Low Ground
6. Reference Dwell Input
7. Advance Input
8. Bias Voltage
9. Est Input
10. Reference Output
11. Bypass Input
12. 900 RPM Detector
13. Dwell Control

ORDERING INFORMATION

Device	Operating Temperature Range	Package
MCCF79076	T_A = – 30° to +125°C	Flip–Chip
MC79076DW		SO–16L

OUTLINE DIMENSIONS



DW SUFFIX
PLASTIC PACKAGE
CASE 751G–02
(SO–16L)
ISSUE A

NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. DIMENSIONS A AND B DO NOT INCLUDE MOLD PROTRUSION.
4. MAXIMUM MOLD PROTRUSION 0.15 (0.006) PER SIDE.
5. DIMENSION D DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.13 (0.005) TOTAL IN EXCESS OF D DIMENSION AT MAXIMUM MATERIAL CONDITION.

	MILLIMETERS		INCHES	
DIM	MIN	MAX	MIN	MAX
A	10.15	10.45	0.400	0.411
B	7.40	7.60	0.292	0.299
C	2.35	2.65	0.093	0.104
D	0.35	0.49	0.014	0.019
F	0.50	0.90	0.020	0.035
G	1.27 BSC		0.050 BSC	
J	0.25	0.32	0.010	0.012
K	0.10	0.25	0.004	0.009
M	0 °	7 °	0 °	7 °
P	10.05	10.55	0.395	0.415
R	0.25	0.75	0.010	0.029

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