

### 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<sub>A</sub> ≤ +140°C Ambient Operating Temperature

## **Simplified Block Diagram** and Application Circuit Bypass Input ○—^\/\^ Ref. Output O-/\/\ Vcc Est. Input O-AAA To Ignition 110 120 10 스 Coil Reference Generator Logic and Hall Control Sensor Input

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## MC79076 MCCF79076

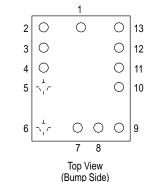
## ELECTRONIC IGNITION CONTROL CIRCUIT

SEMICONDUCTOR TECHNICAL DATA



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

#### **FLIP-CHIP CONFIGURATION**



#### **BUMP CONNECTIONS**

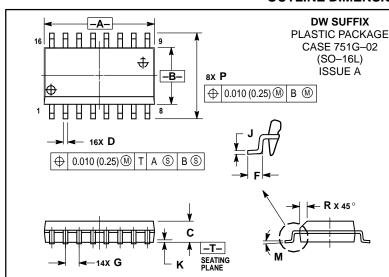
- 1. High Ground
- 2. Output Current Limit
- 3. Dwell Output
- 4. Supply
- 5. Low Ground
- 6. Reference Dwell Input
- 7. Advance land
- 7. Advance Input8. Bias Voltage
- 9. Est Input
- 10. Reference Output
- 11. Bypass Input
- 12. 900 RPM Detector
- 13. Dwell Control

#### **ORDERING INFORMATION**

Device	Operating Temperature Range	Package
MCCF79076	$T_A = -30^{\circ} \text{ to } +125^{\circ}\text{C}$	Flip-Chip
MC79076DW		SO-16L

#### MC79076 MCCF79076

#### **OUTLINE DIMENSIONS**



#### NOTES:

- DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
- CONTROLLING DIMENSION: MILLIMETER.
- DIMENSIONS A AND B DO NOT INCLUDE MOLD PROTRUSION.
- MAXIMUM MOLD PROTRUSION 0.15 (0.006) PER
- DIMENSION DIDOES 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
Α	10.15	10.45	0.400	0.411
В	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 °
Р	10.05	10.55	0.395	0.415
R	0.25	0.75	0.010	0.029

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