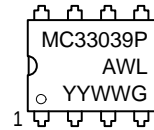


MC33039, NCV33039

Closed Loop Bridgeable Motor Adapter



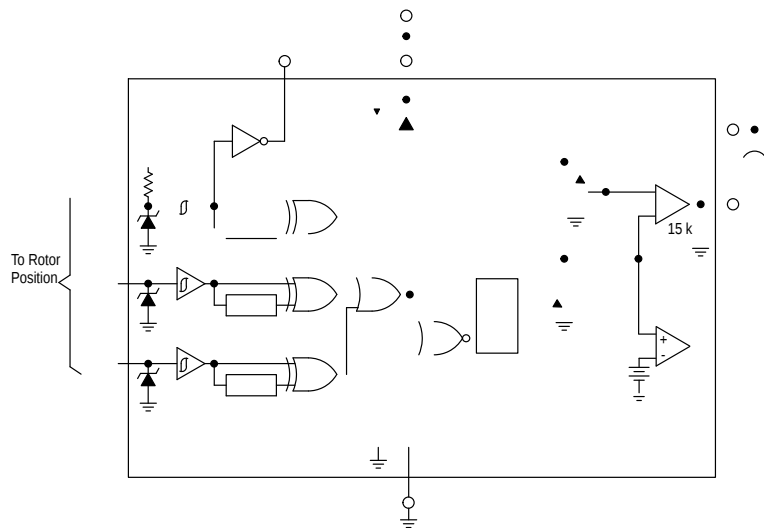
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Features

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Representative Block Diagram

MC33039, NCV33039

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
V _{CC} Zener Current	I _{Z(V_{CC})}	30	mA
Logic Input Current (Pins 1, 2, 3)	I _{IH}	5.0	mA
Output Current (Pins 4, 5), Sink or Source	I _{DRV}	20	mA
Power Dissipation and Thermal Characteristics			
Maximum Power Dissipation @ T _A = +85°C	P _D	650	mW
Thermal Resistance, Junction-to-Air	R _{θJA}	100	°C/W
Operating Junction Temperature	T _J	+150	°C
Operating Ambient Temperature Range	T _A		°C
MC33039		-40 to +85	
NCV33039		-40 to +125	
Storage Temperature Range	T _{stg}	-65 to +150	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

ELECTRICAL CHARACTERISTICS (V_{CC} = 6.25 V, R_T = 10 k, C_T = 22 nF, T_A = 25°C, unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
LOGIC INPUTS					
Input Threshold Voltage					V
High State	V _{IH}	2.4	2.1	-	
Low State	V _{IL}	-	1.4	1.0	
Hysteresis	V _H	0.4	0.7	0.9	
Input Current					μA
High State (V _{IH} = 5.0 V)	I _{IH}				
φ _A		-40	-60	-80	
φ _B , φ _C		-	-0.3	-5.0	
Low State (V _{IL} = 0 V)	I _{IL}				
φ _A		-190	-300	-380	
φ _B , φ _C		-	-0.3	-5.0	

MONOSTABLE AND OUTPUT SECTIONS

Output Voltage

High State

$$f_{out} (I_{source} = 5.0 \text{ mA})$$

$$\phi_A (I_{source} = 2.0 \text{ mA})$$

Low State

$$f_{out} (I$$

MC33039, NCV33039

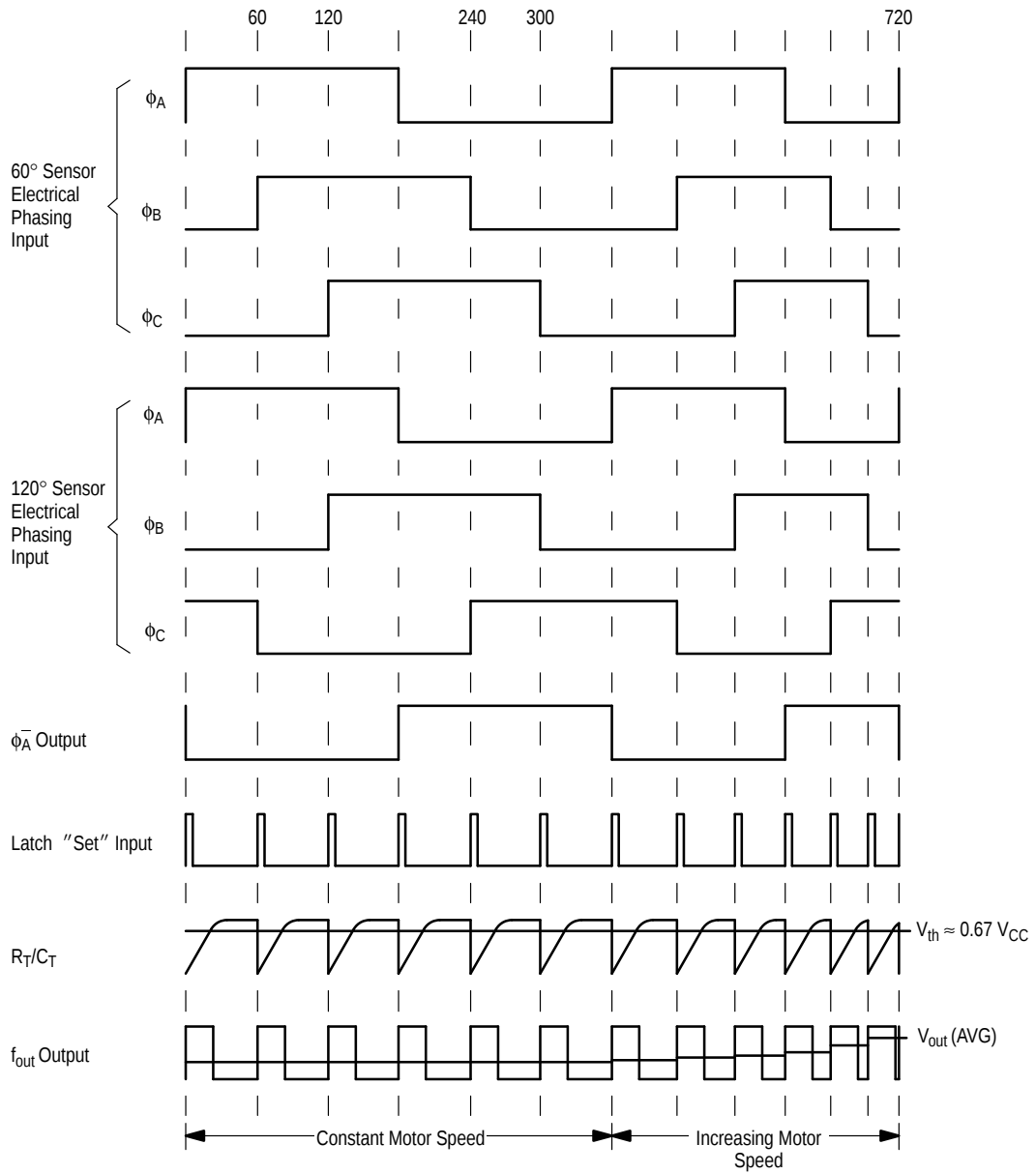
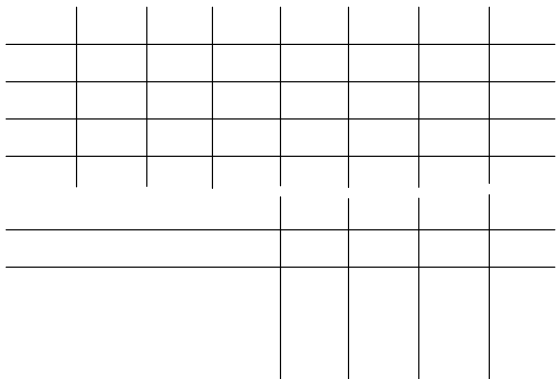


Figure 1. Typical Three Phase, Six Step Motor Application

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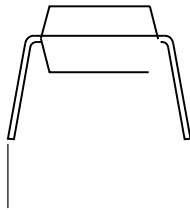
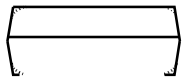
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MC33039, NCV33039

ORDERING INFORMATION

Device	Operating Temperature Range	Package	Shipping†
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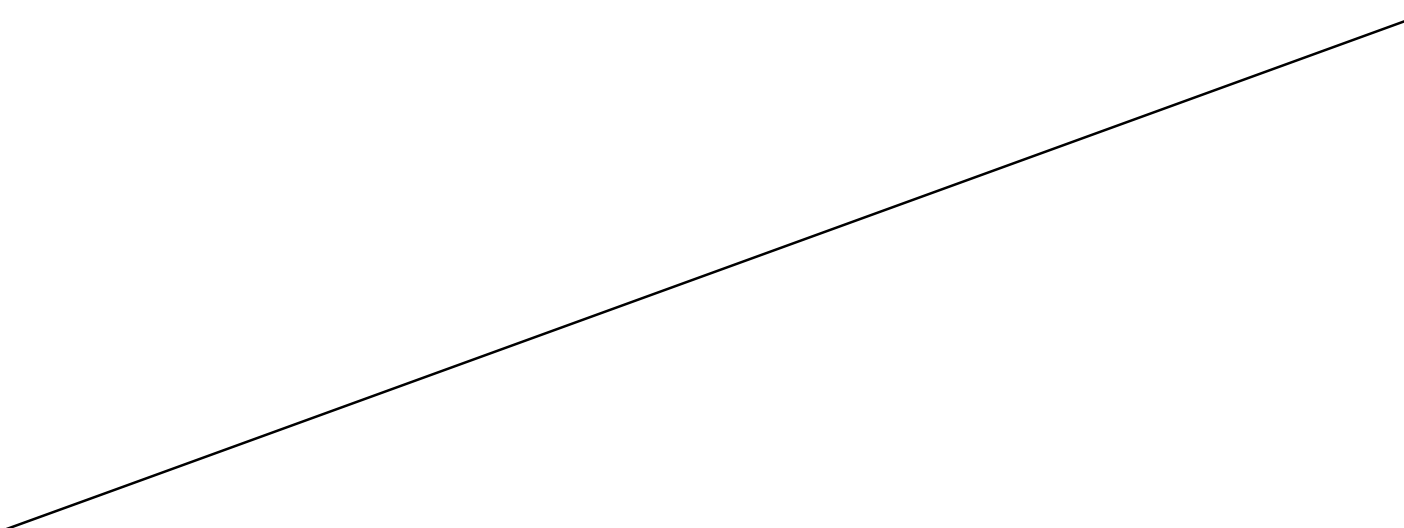
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C	1.35	1.75	0.053	0.069
D	0.33	0.51	0.013	0.020
G	1.27 BSC		0.050 BSC	
H	0.10	0.25	0.004	0.010
J	0.19	0.25	0.007	0.010
K	0.40	1.27	0.016	0.050
M	0	8	0	8
N	0.25	0.50	0.010	0.020
S	5.80	6.20	0.228	0.244

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