



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



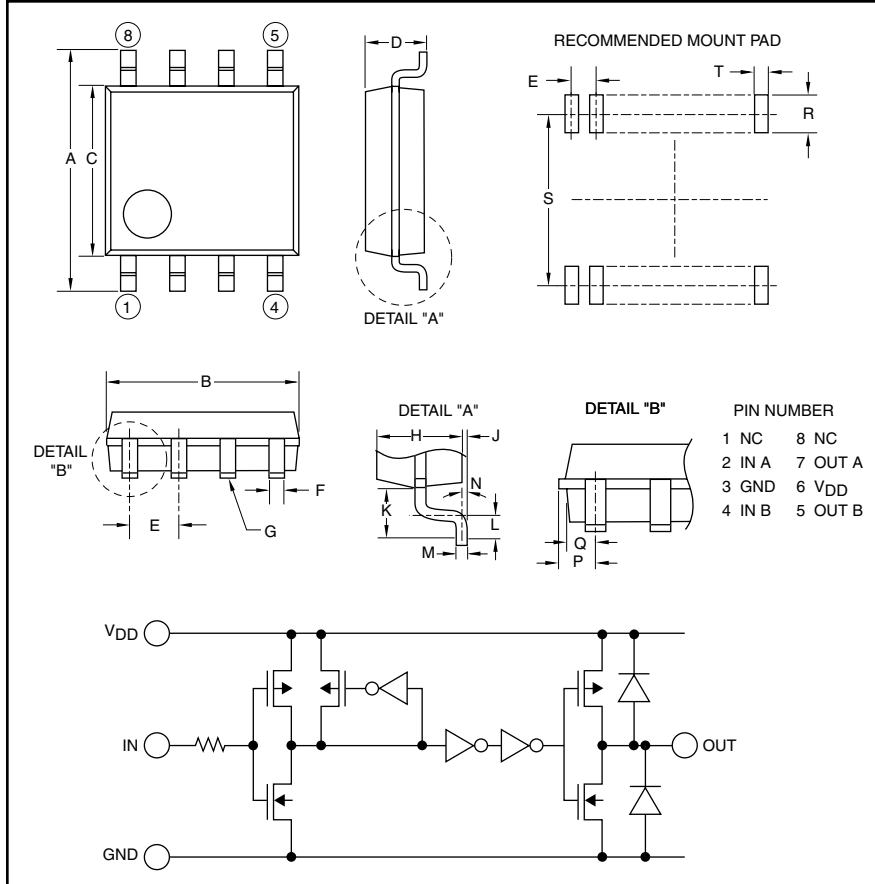
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Description:
M81716FP is a dual inverting general purpose driver.

Features:

- Power Supply Range of Operation (4.5V ~ 24V)
- High Speed Switching Time (22ns Typical, CL = 1000pF)
- Dual Inverting
- SOP-8 Package
- +0.8A to -0.6A Output Current

Applications:

- HID Ballast
- PDP
- MOSFET Driver

Ordering Information:

M81716FP is a +0.8A/-0.6A, 24 Volt HVIC, General Purpose Driver

Outline Drawing and Circuit Diagram

Dimensions	Inches	Millimeters
A	0.24±0.01	6.2±0.3
B	0.2±0.008	5.0±0.2
C	0.17±0.008	4.4±0.2
D	0.08 Max.	1.9 Max.
E	0.05	1.27
F	0.015±0.002	0.4±0.05
G	0.004	0.1
H	0.06	1.5
J	0.002 Min.	0.05 Min.

Dimensions	Inches	Millimeters
K	0.04	0.9
L	0.015±0.008	0.4±0.2
M	0.006±0.002	0.15±0.05
N	10° Max.	10° Max.
P	0.03	0.745
Q	0.023	0.595
R	0.05 Min.	1.27 Min.
S	0.23	5.72
T	0.76	0.76



Powerex, Inc., 200 E. Hillis Street, Youngwood, Pennsylvania 15697-1800 (724) 925-7272

M81716FP

HVIC, General Purpose Driver

24 Volts/+0.8A/-0.6A

Absolute Maximum Ratings, $T_a = 25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	M81716FP	Units
Supply Voltage	V_{DD}	0 ~ 24	Volts
Logic Input Voltage (IN A/B Terminal)	V_{IN}	GND-0.3 ~ $V_{DD}+0.3$	Volts
Package Power Dissipation ($T_a = 25^\circ\text{C}$, On Board)	P_d	—	Watts
Junction Temperature	T_j	-40 ~ 125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ 125	$^\circ\text{C}$

Recommended Operating Conditions

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Supply Voltage	V_{DD}		4.5	—	17	Volts
Logic Supply Voltage	V_{IN}	IN A/B Terminal	GND	—	V_{DD}	Volts
Operating Temperature	T_{opr}		-40	—	100	$^\circ\text{C}$

Electrical AC Characteristics, $V_{DD} = 15\text{V}$, $V_{IN} = 0\text{V}$, 5V unless otherwise specified

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Turn-On Rise Time	t_r	CL = 1000pf	—	35	—	ns
Turn-Off Fall Time	t_f	CL = 1000pf	—	25	—	ns
Delay Time 1	t_{D1}	CL = 1000pf	—	22	—	ns
Delay Time 2	t_{D2}	CL = 1000pf	—	22	—	ns

Electrical DC Characteristics, $V_{DD} = 4.5 \sim 17\text{V}$ unless otherwise specified

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Logic "1" Input Voltage	V_{IH}	$V_{DD} = 15\text{V}$	4.4	—	—	Volts
Logic "0" Input Voltage	V_{IL}	$V_{DD} = 15\text{V}$	—	—	1.8	Volts
Input Bias Current	I_{IN}	$V_{IN} = 0\text{V}$ or V_{DD}	-1.0	—	1.0	μA
Output Protection Diode Current Capability	I_{DI}	—	300	—	—	mA
High Level Output Voltage	V_{OH}	$I_O = 0$	$V_{DD}-0.1$	—	—	Volts
Low Level Output Voltage	V_{OL}	$I_O = 0$	—	—	0.1	Volts
V_{DD} Supply Current	I_{supp}	$V_{DD} = 15\text{V}$, $V_{IN} = 3\text{V}$ (Both Inputs)	—	4.0	8.0	mA
		$V_{DD} = 15\text{V}$, $V_{IN} = 0\text{V}$ (Both Inputs)	—	—	0.05	mA
Output High Level Short-Circuit Pulsed Current	IO+	$V_{DD} = 15\text{V}$, $PW^* \leq 10\mu\text{s}$, $V_{OUT} = 0\text{V}$	0.8	1.0	—	Amperes
Output Low Level Short-Circuit Pulsed Current	IO-	$V_{DD} = 15\text{V}$, $PW^* \leq 10\mu\text{s}$, $V_{OUT} = 9\text{V}$	0.6	0.8	—	Amperes
Output High Level ON Resistance	R_{OUT}	$V_{DD} = 15\text{V}$, $I_{load}^{**} = 10\text{mA}$, $V_{OUT} = \text{"H"}$	—	7.0	12.0	Ω
Output Low Level ON Resistance	R_{OUT}	$V_{DD} = 15\text{V}$, $I_{load}^{**} = 10\text{mA}$, $V_{OUT} = \text{"L"}$	—	6.0	11.0	Ω

*PW : Input Pulse Width

**I load : Supply Input and Output Current to the OUT A/B Terminal

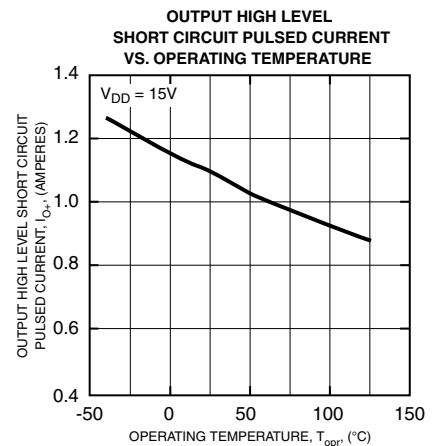
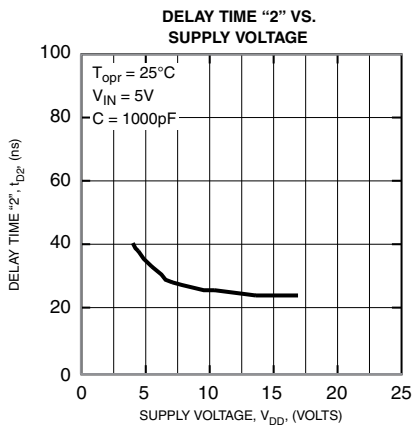
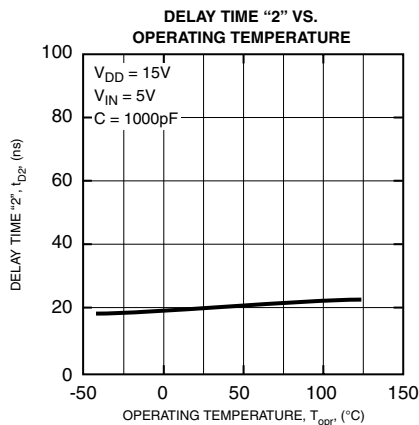
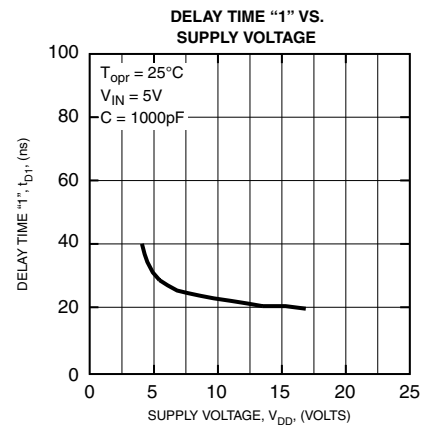
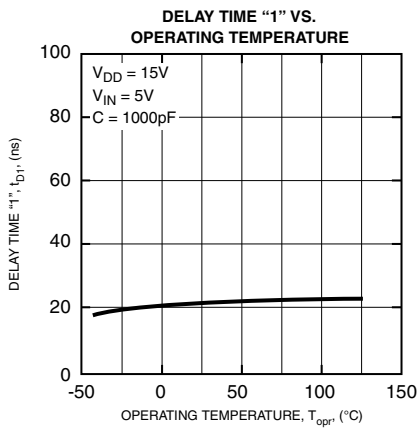
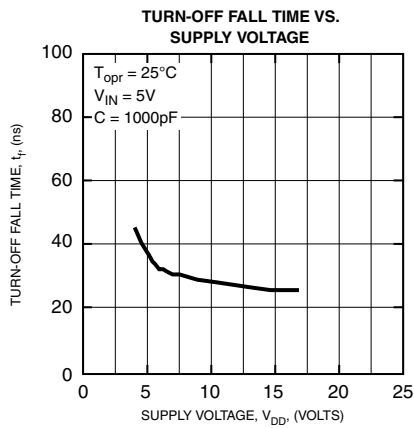
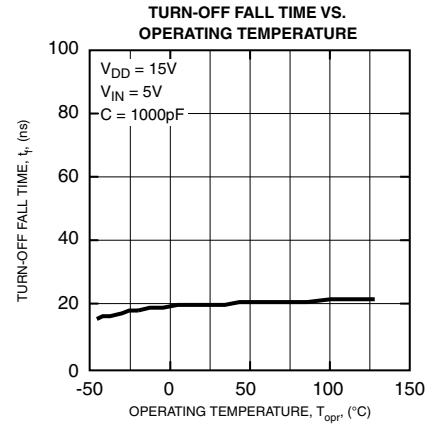
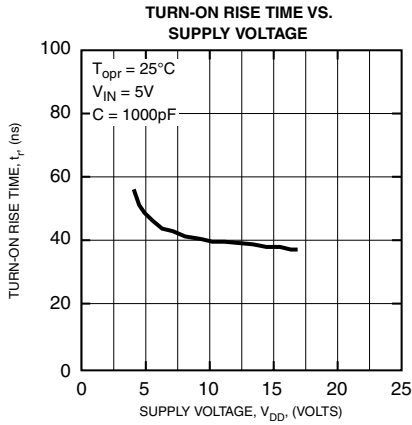
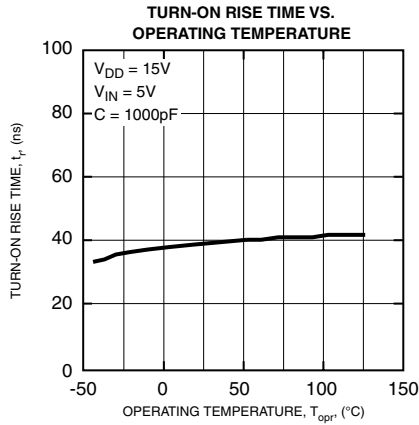


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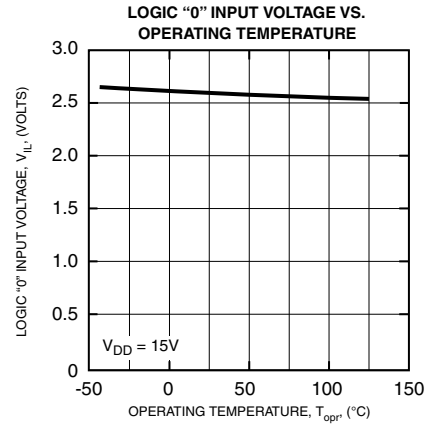
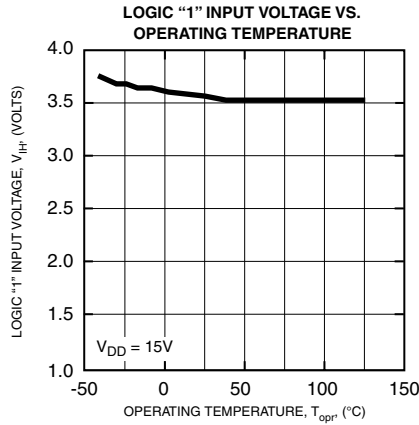
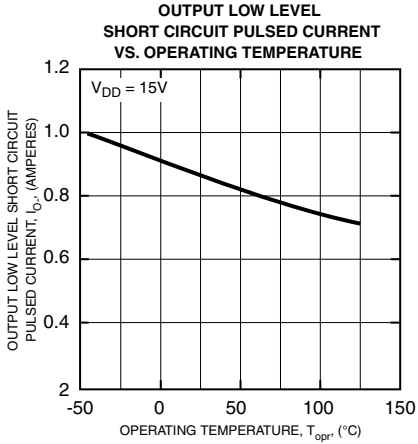
M81716FP

HVIC, General Purpose Driver

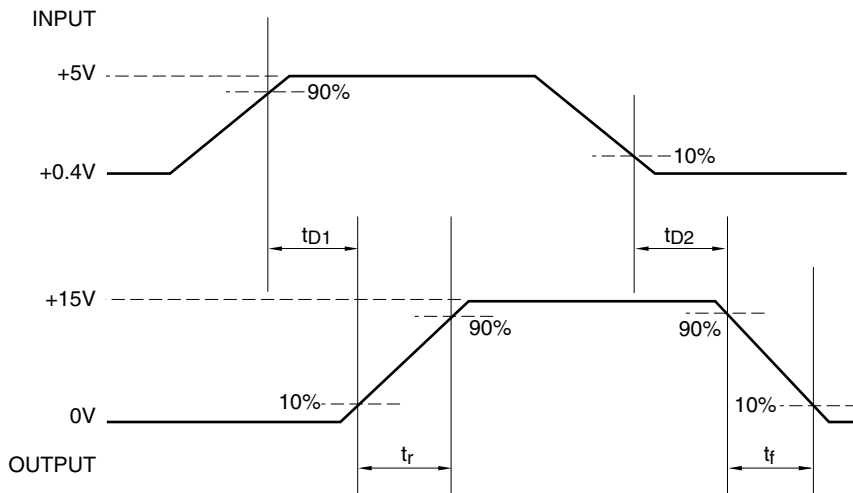
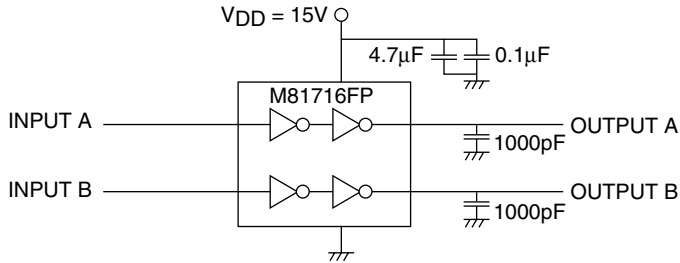
24 Volts/+0.8A/-0.6A



M81716FP
HVIC, General Purpose Driver
 24 Volts/+0.8A/-0.6A



SWITCHING TIME EXAMINATION CIRCUIT DIAGRAM



INPUT RISE AND FALL TIMES = 5ns