TECHNICAL DATA
DATA SHEET 272, REV. A

6A-Peak Low Side MOSFET Driver
Bipolar/CMOS/DMOS Process

FEATURES:

- **CMOS Construction**
- **Similar to Industry Part Number MIC4420**
- **Low Output Impedance, 2.5 Ohms**
- **Latch-Up Protected; Will Withstand > 500 mA Reverse Output Current**
- **Logic Input Withstands Negative Swing of Up to 5V**

MAXIMUM RATINGS

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
Power Dissipation		-	-	1,250	mW
Derating Factors (CerPack)		-	-	10	mW/°C
Storage Temperature		-65	-	+150	°C
Lead Temperature (10sec)		-	-	300	°C
Supply Voltage		-	-	20	Volts
Input Voltage, (V_S + 0.3V to Ground)		-	-	-5.0	Volts
Input Current ($V_{IN} > V_S$)				50	mA

ELECTRICAL CHARACTERISTICS

T_A = 25°C with 4.5V ≤ V_S ≤ 18V otherwise specified.

Logic 1 Input Voltage	V_{IH}	2.4	1.4	-	Volts
Logic 0 Input Voltage	V_{IL}	-	1.1	0.8	Volts
Input Voltage Range	V_{IN}	-5.0	-	V_S +0.3	Volts
Input Current, (0V ≤ V_{IN} ≤ V_S	I_{IN}	-10	-	10	µA
High Output Voltage	V_{OH}	V_S -0.025	-	-	Volts
Low Output Voltage	V_{OL}	-	-	0.025	Volts
Output Resistance, Output Low, (I_{OUT} = 10mA, V_s = 18V	R_O	-	1.7	2.8	Ohms
Output Resistance, Output High, (I_{OUT} = 10mA, V_s = 18V	R_O	-	1.5	2.5	Ohms
Peak Output Current V_S = 18V	I_{PK}	-	6.0	-	Amps
Latch-Up Protection	I_R	>500	-	-	mA
Rise Time, (C_L = 2500 pF)	t_R	-	12	35	ns
Fall Time, (C_L = 2500 pF)	t_F	-	13	35	ns
Delay Time	t_{d1}	-	18	75	ns
Delay Time	t_{d2}	-	48	75	ns
Power Supply Current, (V_{IN} = 3.0V) (V_{IN} = 0V)	I_S	- -	0.45 90	1.5 150	mA µA
Operating Input Voltage	V_S	4.5	-	18	Volts

ELECTRICAL CHARACTERISTICS

T_A = -55°C to +125°C with 4.5V ≤ V_S ≤ 18V otherwise specified.

Logic 1 Input Voltage	V_{IH}	2.4	-	-	Volts
Logic 0 Input Voltage	V_{IL}	-	-	0.8	Volts
Input Voltage Range	V_{IN}	-5.0	-	V_S +0.3	Volts
Input Current, (0V ≤ V_{IN} ≤ V_S	I_{IN}	-10	-	10	µA
High Output Voltage	V_{OH}	V_S -0.025	-	-	Volts
Low Output Voltage	V_{OL}	-	-	0.025	Volts

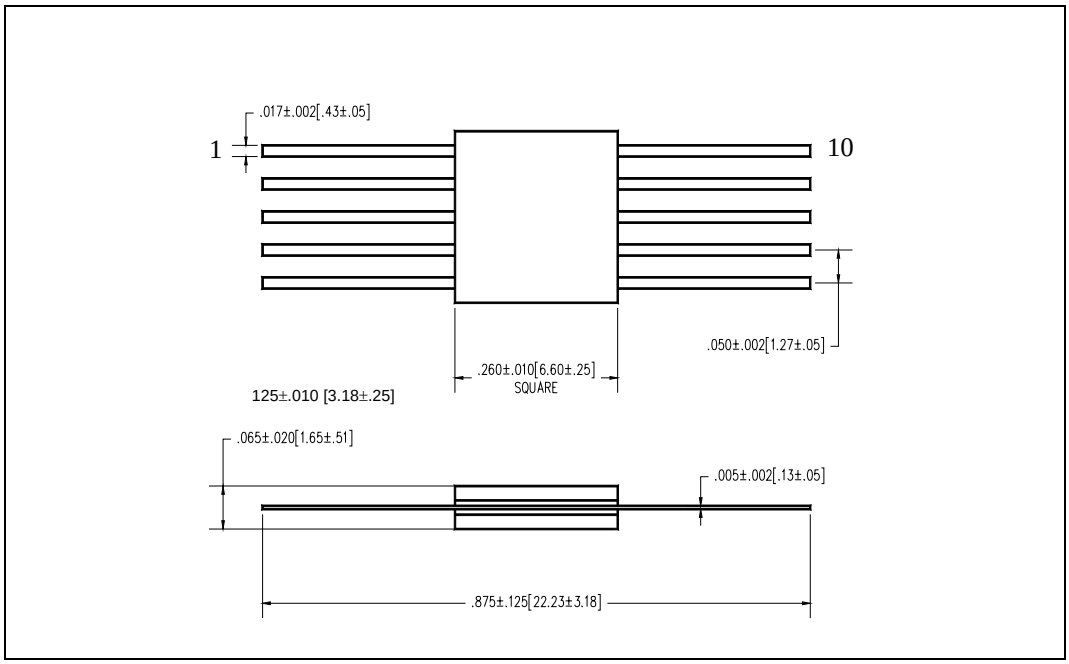
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ELECTRICAL CHARACTERISTICS (Continued)

T_A = -55°C to +125°C with 4.5V ≤ V_S ≤ 18V otherwise specified.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
Output Resistance, Output Low, (I_{OUT} = 10mA, V_s = 18V)	R_O	-	3.0	5.0	Ohms
Output Resistance, Output High, (I_{OUT} = 10mA, V_s = 18V)	R_O	-	2.3	5.0	Ohms
Rise Time, (C_L = 2500 pF)	t_R	-	32	60	ns
Fall Time, (C_L = 2500 pF)	t_F	-	34	60	ns
Delay Time	t_{d1}	-	50	100	ns
Delay Time	t_{d2}	-	65	100	ns
Power Supply Current, (V_{IN} = 3.0V) (V_{IN} = 0V)	I_S	- -	0.45 0.06	3.0 0.4	mA mA
Operating Input Voltage	V_S	4.5	-	18	Volts

MECHANICAL DIMENSIONS: in Inches / mm



CerPack-10

PINOUT TABLE

DEVICE TYPE	Pin- 1	Pin-2	Pin-3	Pin-4	Pin-5	Pin-6	Pin-7	Pin-8	Pin-9	Pin-10
MOSFET CERPACK-10	V_S	Input	N/C	Gnd.	N/C	N/C	Gnd.	Output	Output	V_S

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