TECHNICAL DATA
DATA SHEET 784, REV. A

3A-Peak Low Side MOSFET Driver
Bipolar/CMOS/DMOS Process

FEATURES:

- **CMOS Construction**
- **Similar to Industry Part Number MIC4424**
- **Low Output Impedance, 3.5 Ohms**
- **Latch-Up Protected; Will Withstand > 500mA Reverse Output Current**
- **Logic Input Withstands Negative Swing of Up to -5V**

MAXIMUM RATINGS

RATING	MIN.	TYP.	MAX.	UNITS
Power Dissipation (T_C = 25°C)	-	-	1250	mW
Derating Factors (CerDip)	-	-	12.5	mW/°C
Storage Temperature	-65	-	+150	°C
Lead Temperature (10sec)	-	-	300	°C
Supply Voltage	-	-	22	Volts
Input Voltage, (V_S + 0.3V to Ground –5.0)	-	-	-5.0	Volts
Input Current (V_{IN} >V_S)	-1.0	-	1.0	mA

ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
Logic 1 Input Voltage	V_{IH}	2.4	-	-	Volts
Logic 0 Input Voltage	V_{IL}	-	-	0.8	Volts
Input Voltage Range	V_{IN}	0	-	V_S	Volts
Input Current, (0V ≤ V_{IN} ≤ V_S)	I_{IN}	-1.0	-	1.0	µA
High Output Voltage	V_{OH}	V_S -0.025	-	-	Volts
Low Output Voltage	V_{OL}	-	-	0.025	Volts
Output Resistance, Output High, (I_{OUT} = 10mA, V_s = 18V)	R_O	-	2.8	5.0	Ohms
Output Resistance, Output Low, (I_{OUT} = 10mA, V_s = 18V)	R_O	-	3.5	5.0	Ohms
Peak Output Current V_S = 18V	I_{PK}	-	3.0	-	Amps
Latch-Up Protection; withstand reverse current.	I_R	>500	-	-	mA
Rise Time, (C_L = 1800 pF)	t_R	-	23	35	ns
Fall Time, (C_L = 1800 pF)	t_F	-	25	35	ns
Delay Time, Rise (C_L = 1800 pF)	t_{d1}	-	33	75	ns
Delay Time, Fall (C_L = 1800 pF)	t_{d2}	-	38	75	ns
Power Supply Current, (V_{IN} = 3.0V) (V_{IN} = 0V)	I_S	- -	1.5 0.15	2.5 0.25	mA mA
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.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
Logic 1 Input Voltage	V_{IH}	2.4	-	-	Volts
Logic 0 Input Voltage	V_{IL}	-	-	0.8	Volts
Input Voltage Range	V_{IN}	0	-	V_S	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

SENSITRON

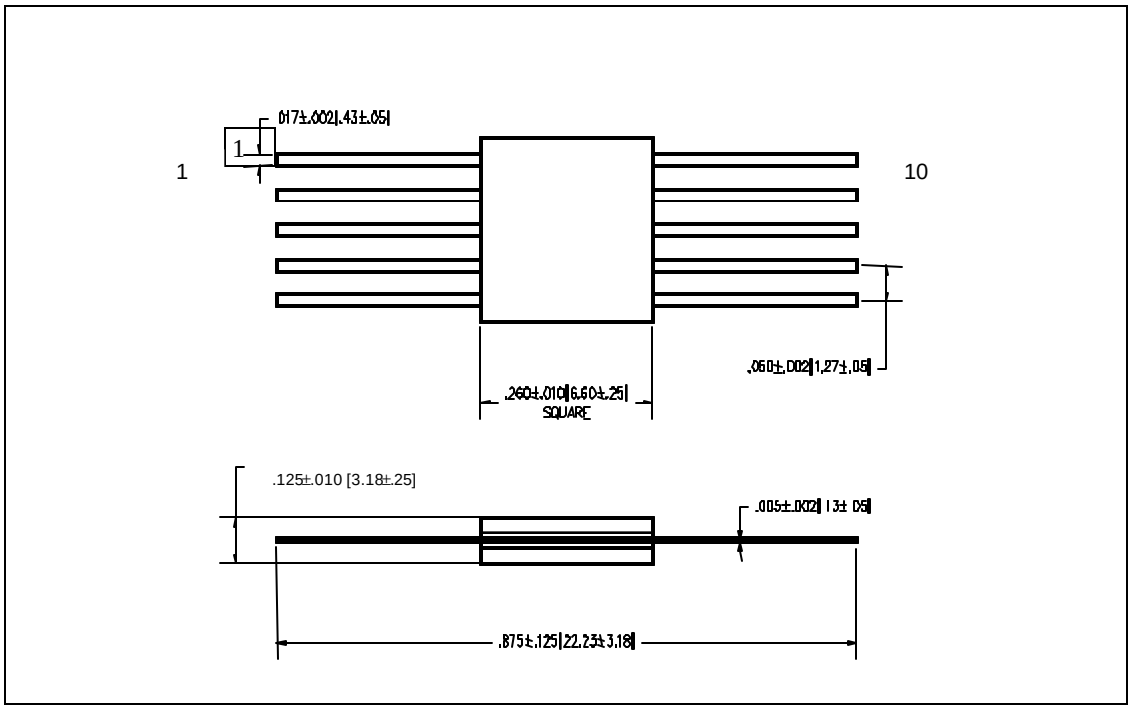
TECHNICAL DATA
DATA SHEET 784, REV. A

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 High, V_{IN} = 0.8 (I_{OUT} = 10mA, V_s = 18V)	R_O	-	3.7	8.0	Ohms
Output Resistance, Output Low, V_{IN} = 2.4 (I_{OUT} = 10mA, V_s = 18V)	R_O	-	4.3	8.0	Ohms
Rise Time, (C_L = 1800 pF)	t_R	-	28	60	ns
Fall Time, (C_L = 1800 pF)	t_F	-	32	60	ns
Delay Time, Rise (C_L = 1800 pF)	t_{d1}	-	32	100	ns
Delay Time, Fall (C_L = 1800 pF)	t_{d2}	-	38	100	ns
Power Supply Current, (V_{IN} = 3.0V) (V_{IN} = 0V)	I_S	-	2.0 0.20	3.5 0.3	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 DRIVER CERPACK-10	N/C	Input A	Gnd.	Input B	N/C	N/C	Output B	V_S	Output A	N/C

TECHNICAL DATA

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