

Features

- Single Supply Operation:
+10V to +45V
- Low Standby Power
Dissipation: 35 mW
- 1.5 A, 50 ms, Pulse Current
Capability
- Direct Replacement for
DH0006H

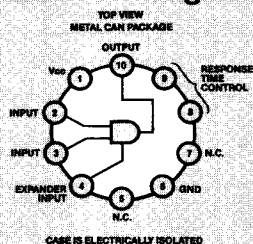
Applications

- Lamp drivers
- Solenoid actuators
- Squib igniters
- Relay drivers

Ordering Information

Part No.	Temp. Range	Outline#
EDH0006CH	0 to +70°C	MDP0009
EDH0006H	-55 to +125°C	MDP0009
EDH0006H/883B	-55 to +125°C	MDP0009

Connection Diagram



General Description

The EDH0006 is a high voltage, high current driver designed to accept standard DTL or TTL logic levels and drive a load of up to 400mA at 28 Volts. AND inputs are provided along with an expander connection, should additional gating be required. The addition of an external capacitor provides control of the rise and fall times of the output in order to decrease cold lamp surge currents or to minimize electromagnetic interference if long lines are driven.

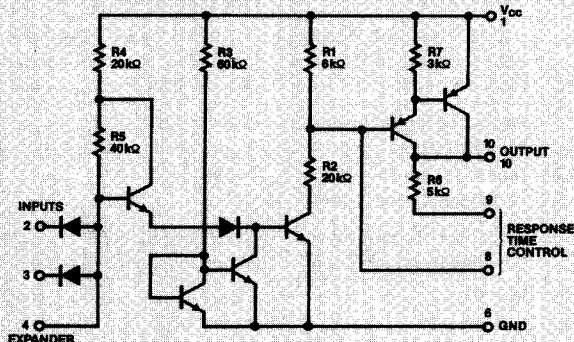
The EDH0006 is constructed using Elantec's proprietary monolithic control chip plus discrete power transistors in a hybrid thick film assembly.

The EDH0006 is specified for operation over the -55°C to +125°C military temperature range. The EDH0006C is specified for operation over the 0°C to +70°C temperature range. Both devices are available in a 10-lead metal can package.

Elantec facilities comply with MIL-I-45208A, and other applicable quality specifications. Elantec's military devices are manufactured and tested in our MIL-STD-1772A certified facility in Milpitas, California.

For additional information on Elantec's quality and Reliability Assurance policy and procedures request brochure QRA-1.

Equivalent Schematic



EDH0006/EDH0006C

1.5 Amp, High Voltage Driver

Absolute Maximum Ratings

V _S	Supply Voltage (for <100 ms)	80 V	T _A	Operating Temperature Range	
V _S	Continuous Supply Voltage	45 V		EDH0006	-55°C to +125°C
V _{in}	Input Voltage	5.5 V		EDH0006C	0°C to +70°C
I _x	Input expander current	5 mA	T _S	Storage Temperature Range	
I _{out}	Peak Output Current (50 mS on/1 sec off)	1.5 A		All Devices	-65°C to +150°C
P _D	Power Dissipation at 25°C (derate 200°C/W above 25°C)	750 mW		Lead Temperature (soldering <10 seconds)	260°C

Important Note: All parameters having Min./Max. specifications are guaranteed. The test level indicates the device testing actually performed during production and quality assurance inspection. Elantec performs most electrical tests using modern high-speed automatic test equipment, specifically the LTX 77 Series system. Unless otherwise noted, all tests are pulsed tests, therefore T_J = T_C = T_A.

Test Level Test Procedure

- I 100% production tested and QA sample tested per QA test plan QCX0002.
- II 100% production tested at T_A = 25°C, and QA sample tested at T_A = 25°C, T_{MAX} and T_{MIN} per QA test plan QCX0002.
- III QA sample tested per QA test plan QCX0002.
- IV Parameter is guaranteed (but not tested) by Design and Characterization Data.
- V Parameter is typical value at T_A = 25°C for information purposes only.

DC Electrical Characteristics T_{min} < T_A < T_{max} unless otherwise specified

Parameter	Test Conditions	Min.	Typ.	Max.	Test Level	Units
V _{IH}	Logical "1" Input Voltage	V _{CC} = 10 V to 45 V	2.0		I	V
V _{IL}	Logical "0" Input Voltage	V _{CC} = 10 V to 45 V		0.8	I	V
V _{OH}	Logical "1" Output Voltage	V _{CC} = 28 V, V _{in} = 2.0 V, I _{out} = 400 mA	26.5	27.0	I	V
V _{OH}	Logical "1" Output Voltage	V _{CC} = 10 V, V _{in} = 2.0 V, I _{out} = 150 mA	8.8	9.2	I	V
V _{OL}	Logical "0" Output Voltage	V _{CC} = 45 V, V _{in} = 0.8 V, R _L = 1 kΩ		1	I	mV
I _{IL}	Logical "0" Input Current	V _{CC} = 45 V, V _{in} = 0.4 V	-0.8	-1.0	I	mA
I _{IH}	Logical "1" Input current	V _{CC} = 45 V, V _{in} = 2.4 V		0.5	I	μA
I _{IH}	Logical "1" Input Current	V _{CC} = 45 V, V _{in} = 5.5 V		100	I	μA
B _{VIN}	Input Breakdown Voltage		5.5		I	V
I _{cc off}	"Off" Power Supply Current	V _{CC} = 45 V, V _{in} = 0.8 V		2	I	mA
I _{cc on}	"On" Power supply Current	V _{CC} = 45 V, V _{in} = 2.0 V, I _{out} = 0 mA		8	I	mA
t _r	Rise Time	Note 1	100	300	I	ns
t _f	Fall Time	Note 1	800	1500	I	ns
T _{on}	Turn on time	Note 1	260	600	I	ns
T _{off}	Turn off time	Note 1	2.2	5.2	I	μs

Note 1: V_{CC} = 28 V, R_L = 82 Ω, C_L = 10 pF, V_{in} = 0 to 3.0 V pulse, T_r < 10 ns, T_A = 25°C