

**DI-5140/DI-5180/DI-5240/DI-5280
AC PLASMA DISPLAY DRIVERS**

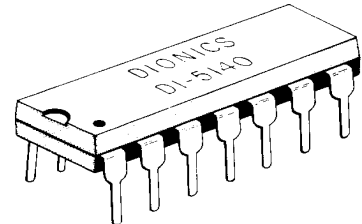
The DIONICS DI-5140 series circuits provide a convenient and efficient method to drive ac plasma display panels from signals originating in MOS or TTL digital systems. These devices are engineered to deliver switched high voltage square-wave signals to multi segment or dot-matrix panels. Integral diodes — intended for pull-up of "off" segments — are included.

FEATURES

- High voltage: 140, 180, 240, 280 V.
- High current: up to 5 mA per line
- Sensitive input circuits suitable for MOS, CMOS or TTL.
- Five outputs per package

HIGH VOLTAGE

**MONOLITHIC SILICON
DIELECTRICALLY ISOLATED
INTEGRATED CIRCUITS**

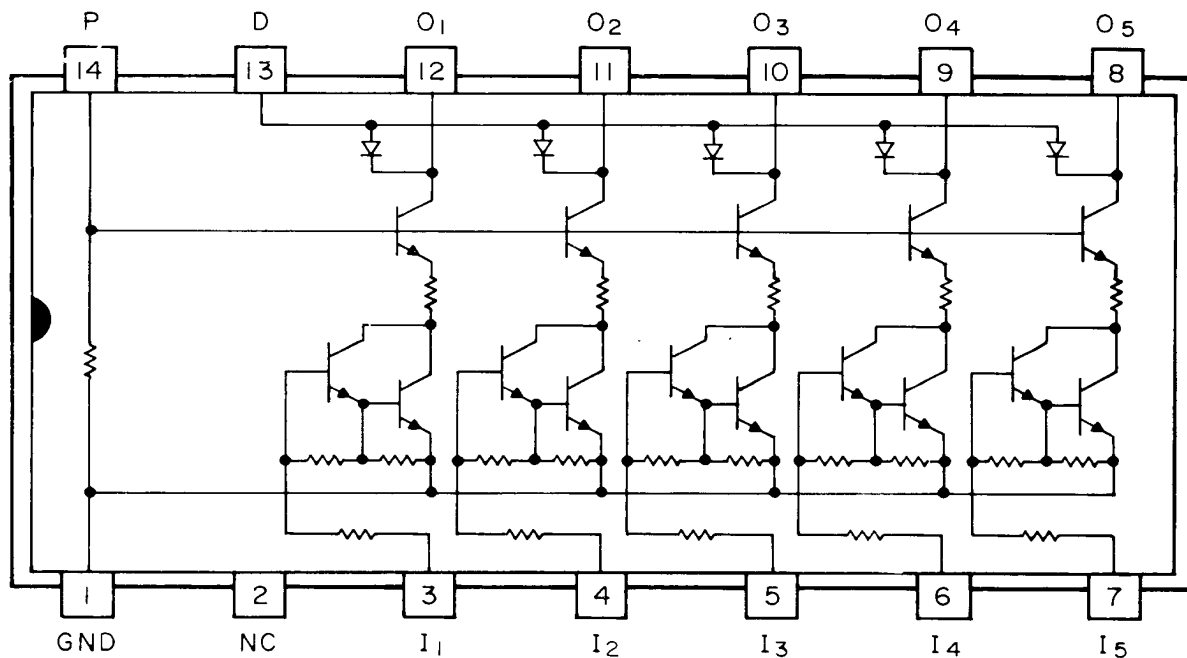


**14 LEAD PLASTIC
PACKAGE**

Single Copy

003051

Handle With Care



PIN CONNECTIONS

PRELIMINARY • Notice: This is not a final specification. Some parametric limits are subject to change.

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DI-5140 DI-5180 DI-5240 DI-5280

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

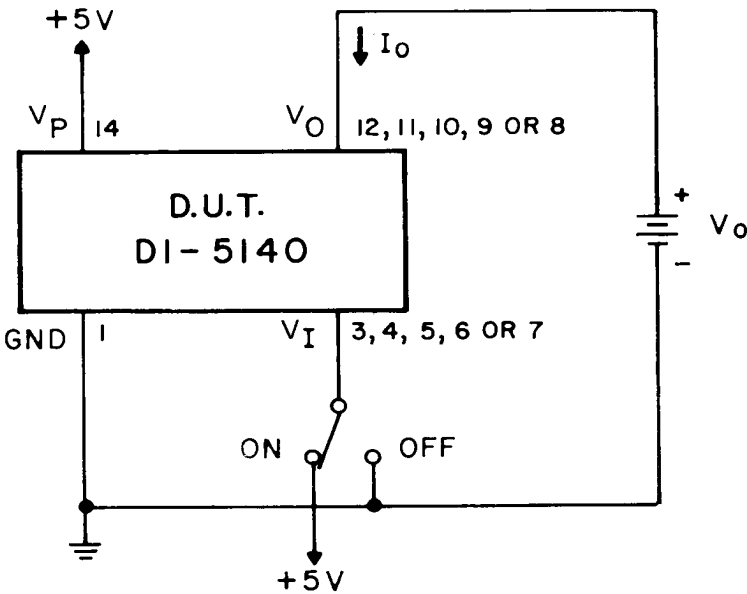
CHARACTERISTIC		SYMBOL	NOTES	LIMITS	UNITS
Output Voltage	DI-5140	V _O (MAX)	1	140	V.
	DI-5180			180	V.
	DI-5240			240	V.
	DI-5280			280	V.
Diode Reverse Voltage		V _R (MAX)	2	(Same as V _O limits)	V.
Output Current		I _O (MAX)		20	mA
Input Voltage		V _S (MAX)	1	±7	V
Power Dissipation		P _D	3	750	mW
Storage Temperature		T _S		-40 to 125	°C
Operating Temperature		T _O		-15 to 75	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

PARAMETER	SYMBOL	NOTES	CONDITION	MIN	TYP	MAX	UNITS
Output "On" Current	I _{OL}		V _O = 10 V. V _I = 5 V. V _P = 5 V.	5.0	8.0	—	mA
Output "Off" Current	I _{OH}		V _O = RATED V. V _I = 0.4 V.	—	0.1	10	μA
Input "On" Current	I _{IH}		V _S = 5 V.	0.2	—	1.0	mA
Turn-on Delay	t _{on}		See Test Circuit	—	1.0	—	μS
Turn-off Delay	t _{off}			—	2.0	—	μS

NOTES:

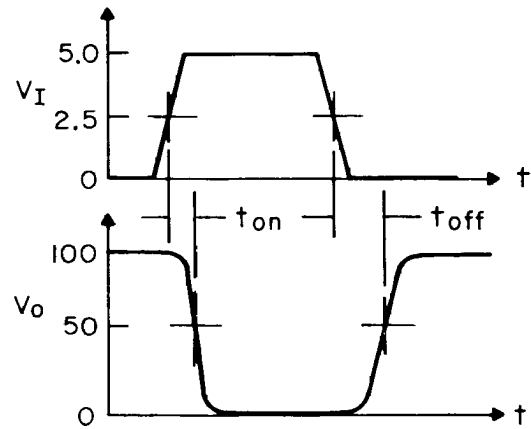
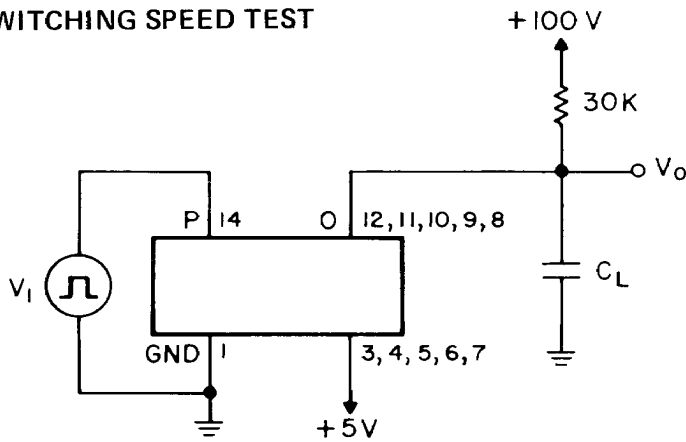
- 1. Measured with respect to GND terminal (pin 1).
- 2. Measured between D terminal (Pin 13:-) and O terminals (+).
- 3. Derate at 7.5 mW/°C above 25°C ambient temperature.



SIMPLIFIED TEST CIRCUIT

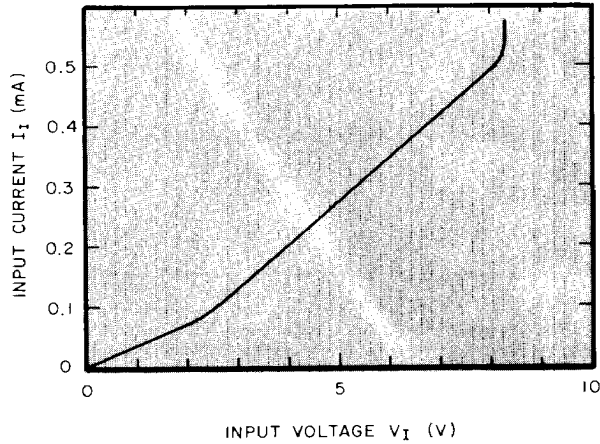


SWITCHING SPEED TEST

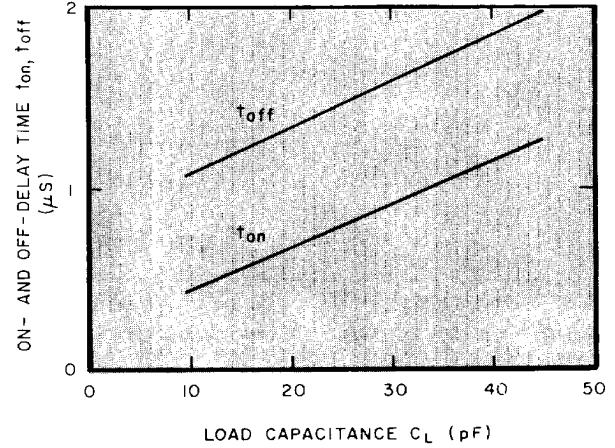


TYPICAL PERFORMANCE

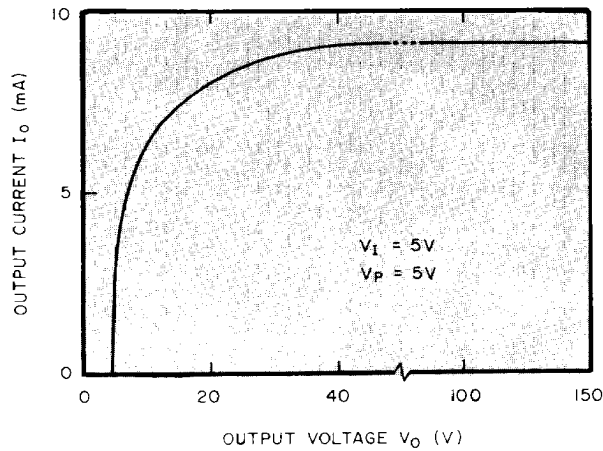
INPUT CHARACTERISTICS



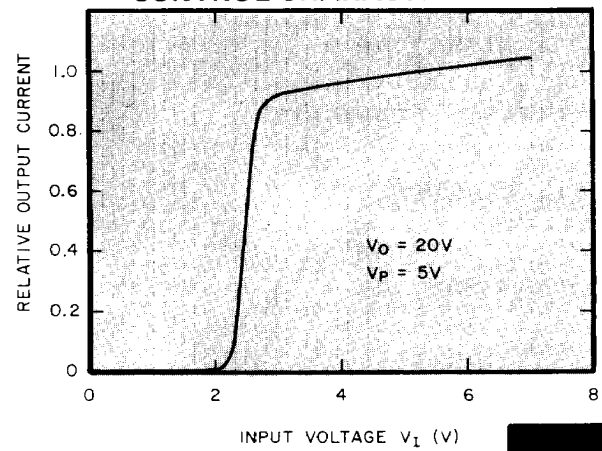
SWITCHING CHARACTERISTICS

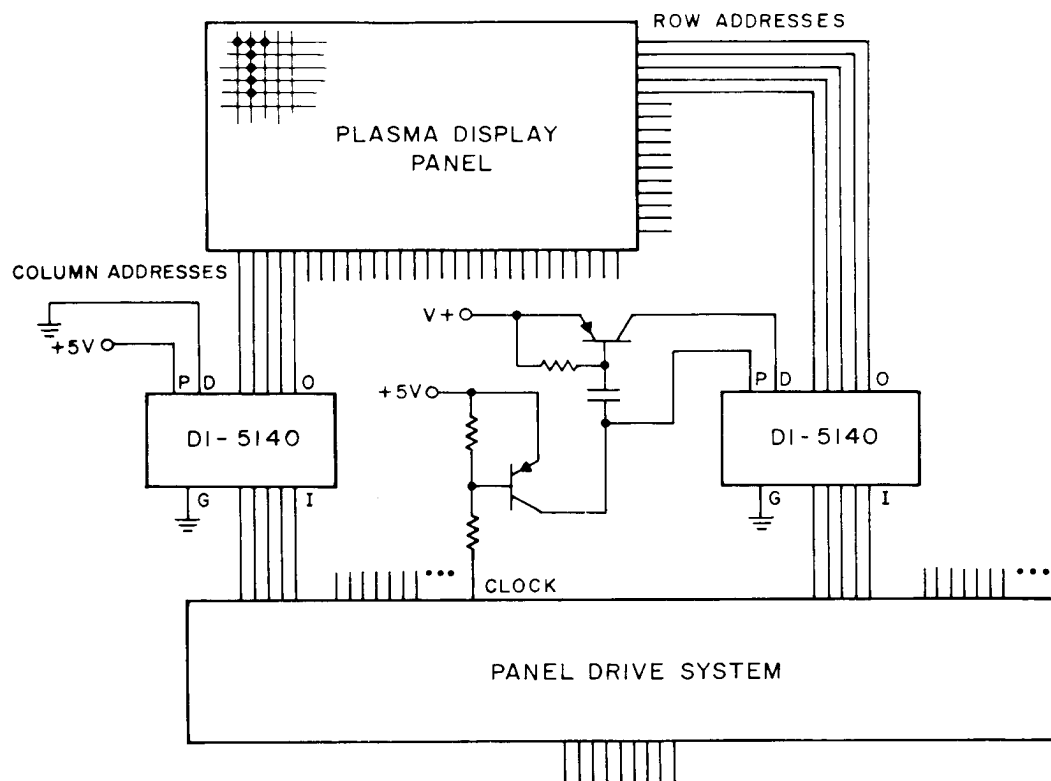


OUTPUT CHARACTERISTICS



CONTROL CHARACTERISTICS





UNI-DIRECTIONAL DRIVE SCHEME

SALES REPRESENTATIVES

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