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## GAS DISCHARGE DISPLAY SEGMENT DRIVERS

# DI-230A      DI-240A

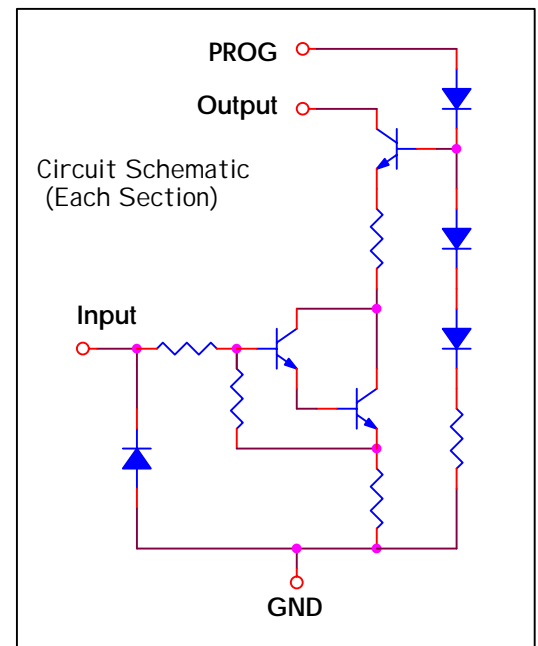
### General Description:

The DIONICS DI-230A / DI-240A Series circuits are designed to drive gas discharge display devices from signals originating from MOS or TTL circuitry. Each output is a switched, programmable constant current sink with a voltage compliance of 80 or 125 Volts.

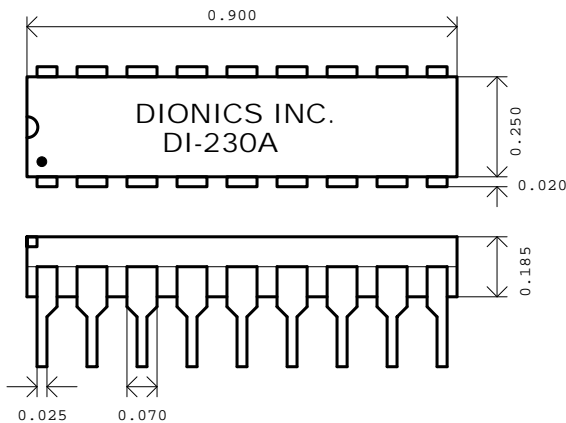
These circuits provide for simple interfaces with displays such as the Beckman, Burroughs Panaplex<sup>®</sup>, Cherry or equivalents.

### Features:

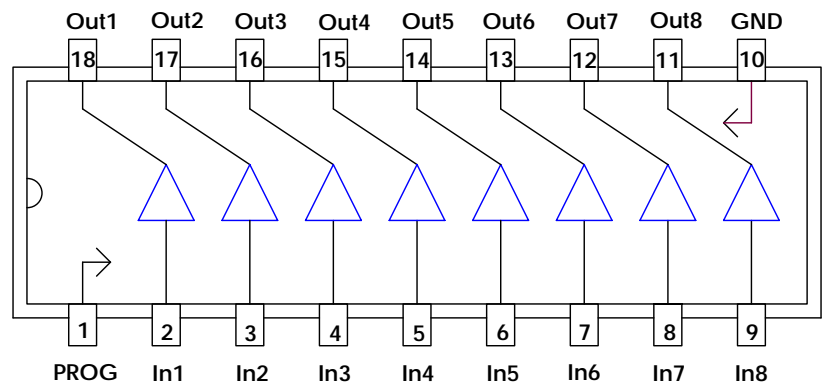
- ✓ High Breakdown Voltage: 80V or 125V.
- ✓ High Input Voltage Capability: 40V
- ✓ TTL or MOS Compatible
- ✓ All Output Currents Programmed with Single Resistor
- ✓ Requires Few Additional Components
- ✓ Equivalent To DM-8889, MC3491, ITT-505
- ✓ DC Restoring Input Diode



### Package Layout:



### Pin Connections



Absolute Maximum Rating (Ta = 25 °C)				
Characteristic	Symbol	Notes	Limits	Units
Input Voltage	V <sub>in</sub>	Measured With Respect to GND Terminal	40	V
Output Current	I <sub>o</sub>		5	mA
Output Voltage DI-230	V <sub>o</sub>	Measured With Respect to GND Terminal	80	V
Output Voltage DI-240	V <sub>o</sub>	Measured With Respect to GND Terminal	125	V
Power Dissipation DI-230; DI-240	P <sub>D</sub>	Derate at 8 mW/ °C Above 25 °C Ambient	800	mW
Storage Temperature	T <sub>s</sub>		-55 to +125	°C
Operating Temperature*	T <sub>o</sub>		0 to +70	°C

Electrical Characteristics (Ta = 25 °C)						
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Output Saturation Voltage	V <sub>o</sub> (SAT)	I <sub>o</sub> =1mA; V <sub>i</sub> =3.5V; R <sub>p</sub> =27kΩ; V <sub>p</sub> =10V		5		V
Output Leakage Current	I <sub>o</sub> (OFF)	V <sub>o</sub> = Rated Voltage; V <sub>i</sub> = 0.4V; R <sub>p</sub> = 27kΩ; V <sub>p</sub> = 10V		0.1	10	μA
Output Current Match	ΔI <sub>o</sub> / I <sub>o</sub>	V <sub>o</sub> =60V; V <sub>i</sub> =3.5V; R <sub>p</sub> =27kΩ; V <sub>p</sub> =10V		± 5	± 10	%
Output Current	I <sub>o</sub> (ON)	V <sub>o</sub> =60V; V <sub>i</sub> =3.5V; R <sub>p</sub> =27kΩ; V <sub>p</sub> =10V	1.0	1.2	1.4	mA
Input Current	I <sub>i</sub>	V <sub>i</sub> = 7.0V	250	370	500	μA

**Typical Application:**

