

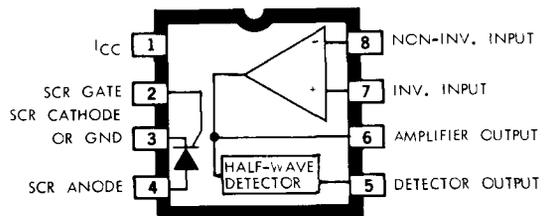
## TYPE ULN-2300M AMPLIFIER SCR FIRING CIRCUIT TYPE ULN-2301M AMPLIFIER-DETECTOR CIRCUIT

Drive SCRs directly from the detector output of the ULN-2301M. Or use the ULN-2300M, complete with a 60 V SCR right on the same chip. Both feature high input impedance, 12 V Zener diode regulation, an internal bias network, and temperature-compensated triggering level. External connections allow sensitivity adjustment, making them ideal for control systems design. Available in an 8-pin dual in-line package M.

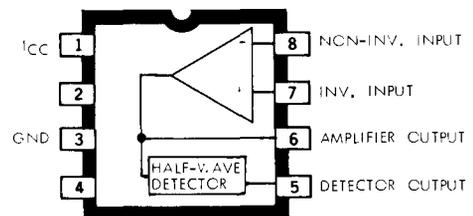
### CHARACTERISTICS:

Voltage Gain.....	33 dB
Bandwidth.....	15 kHz
Input Impedance.....	80 k $\Omega$
Common-Mode Rejection Ratio.....	80 dB
Trigger Level.....	12 mVrms
Recommended Power Supply.....	+12 V at 5 mA
Operating Temperature Range.....	0°C to +70°C
SCR Pulse Current*.....	3 A (10 $\mu$ s duration)
SCR Steady State Current*.....	250 mA

\*ULN-2300M only



**ULN-2300M**



**ULN-2301M**

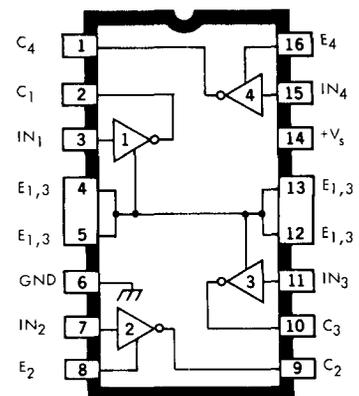
## SERIES 2800 QUAD DARLINGTON SWITCHES

These quad Darlington based switches are monolithic bipolar devices especially designed for high current, high voltage switching applications. Type UDN-2841B and UDN-2842B are intended for sinking applications with the load connected to ground and the IC switching the negative supply rail. The input PNP serves as a level translator and the first NPN stage provides sufficient current gain to activate the 1.5A outputs.

The UDN-2843B and UDN-2844B are chiefly intended for switching the opposite (ground) end of loads in a system utilizing negative supplies. A pair of common collector pins are to be grounded; and the load is switched by the NPN Darlington emitter follower (sourcing from ground).

The UDN-2845B and UDN-2846B are sink (2) and source (2) configurations combined in a single DIP. The UDN-2845B is equivalent to two outputs of the UDN-2841B and UDN-2843B; the UDN-2846B is equivalent to dual pairs of the UDN-2842B and UDN-2844B. This combination of sink and source circuits allows a single IC for bipolar switching applications.

The UDN-2841B, UDN-2843B, and UDN-2845B are intended for use with 5V TTL/LS TTL/DTL, and CMOS logic; the UDN-2842B, UDN-2844B, and UDN-2846B have a much higher input impedance and are intended for use with 12-20V PMOS and CMOS.



DWG. NO. A-10-323

### FEATURES

- 50V Breakdown Voltage
- 1.5A per Output
- High Current Gain
- Package Power Dissipation to 2W
- Plastic Package

(16-pin) Dual In-Line B

**THESE DEVICES ARE PRESENTLY ENGINEERING PROTOTYPE DESIGNS. SALIENT SPECIFICATIONS LISTED ABOVE ARE SUBJECT TO CHANGE WITHOUT NOTICE.**