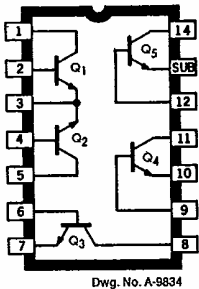


ULN-2086A TRANSISTOR ARRAY

Type ULN-2086A general-purpose transistor array consists of five silicon NPN transistors, two of which are connected as a differential amplifier. The monolithic construction provides close electrical and thermal matching between all transistors.

With the exception of the collector cutoff current specifications listed below and the omission of guaranteed limits on input offset voltage and input offset current, Type ULN-2086A is identical to Type ULN-2046A transistor array.



ELECTRICAL CHARACTERISTICS at  $T_A = +25^{\circ}\text{C}$

| Characteristic           | Symbol    | Test Conditions                 | Limits |      |      | Units         |
|--------------------------|-----------|---------------------------------|--------|------|------|---------------|
|                          |           |                                 | Min.   | Typ. | Max. |               |
| Collector Cutoff Current | $I_{CBO}$ | $V_{CB} = 10\text{ V}, I_E = 0$ | —      | —    | 100  | nA            |
|                          | $I_{CEO}$ | $V_{CE} = 10\text{ V}, I_B = 0$ | —      | —    | 5.0  | $\mu\text{A}$ |

NOTE: The substrate terminal must be tied to the most negative point in the external circuit to maintain isolation between transistors and to provide for normal transistor action.

Additional information on transistor arrays  
ULN-2031A through ULN-2086A, ULS-2045H  
and ULS-2083H, is available from:

Sprague Electric Company  
Integrated Circuits Division  
115 Northeast Cutoff  
Worcester, Massachusetts 01606  
(617) 853-5000