

## Photo Transistor

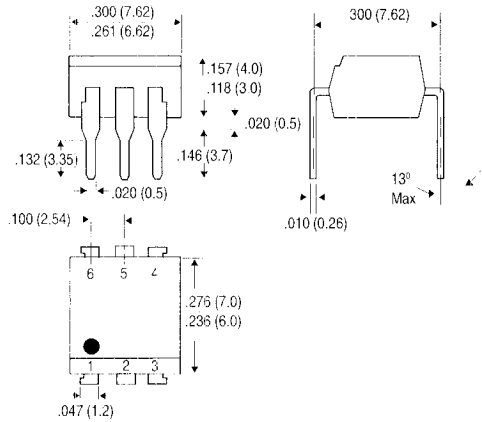
Photo Transistor - Safety Approvals, VDE 0884, BSI, SETI and UL \*Note 1

| Part Number | Features                                                                                              | Current Transfer Ratio<br>Min (%) | CTR Test Conditions                                                  | Isolation Test Voltage<br>KV | Continuous Forward Current<br>Max (mA) | BV <sub>CEO</sub><br>I <sub>c</sub> = 1mA<br>Min (V) | I <sub>CEO</sub> (Dark)<br>V <sub>CE</sub> = 10V<br>Max (nA) | V <sub>CE</sub> (Sat)<br>Max (V)                           | Schematic No. | Package No. |  |  |  |  |  |  |
|-------------|-------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------|------------------------------|----------------------------------------|------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------|---------------|-------------|--|--|--|--|--|--|
| 4N25        | Optically Coupled pair with Infrared Emitter and Photo Transistor Detector<br><br>Base Lead Connected | 20                                | I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 10V                       | 3.3 rms                      | 80                                     | 30                                                   | 50                                                           | 0.5<br>(I <sub>F</sub> = 50mA)<br>(I <sub>c</sub> = 2mA)   | 5             | 2           |  |  |  |  |  |  |
| 4N26        |                                                                                                       |                                   |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| 4N27        |                                                                                                       | 10                                |                                                                      |                              | 60                                     |                                                      | 100                                                          |                                                            |               |             |  |  |  |  |  |  |
| 4N28        |                                                                                                       |                                   |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| 4N35        |                                                                                                       | 100                               |                                                                      |                              | 80                                     | 80                                                   | 50                                                           | 0.3<br>(I <sub>F</sub> = 10mA)<br>(I <sub>c</sub> = 0.5mA) |               |             |  |  |  |  |  |  |
| 4N36        |                                                                                                       |                                   |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| 4N37        |                                                                                                       | 20                                | I <sub>F</sub> = 20mA<br>V <sub>CE</sub> = 1V                        |                              | 100                                    | 30                                                   |                                                              | 1.0<br>(I <sub>F</sub> = 20mA)<br>(I <sub>c</sub> = 4mA)   |               |             |  |  |  |  |  |  |
| 4N38        |                                                                                                       |                                   |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| 4N38A       |                                                                                                       | 40                                | I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 0.4V                      | 5.3 d.c.                     |                                        |                                                      |                                                              | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>c</sub> = 4mA)   |               |             |  |  |  |  |  |  |
| CNX72A      |                                                                                                       |                                   |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| CNY17-1     |                                                                                                       | 40 - 80                           | I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 5V                        | 4.4 d.c.                     | 60                                     | 70                                                   |                                                              | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>c</sub> = 2.5mA) |               |             |  |  |  |  |  |  |
| CNY17-2     |                                                                                                       | 63 - 125                          |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| CNY17-3     |                                                                                                       | 100 - 200                         |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| CNY17-4     |                                                                                                       | 160 - 320                         |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| CNY17-5     |                                                                                                       | 200 - 400                         | Higher CTR figures<br>I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 5V  | 5.3 d.c.                     |                                        | 90                                                   | 150                                                          | 0.3<br>(I <sub>F</sub> = 10mA)<br>(I <sub>c</sub> = 1mA)   |               |             |  |  |  |  |  |  |
| CNY75A      |                                                                                                       | 63 - 125<br>15                    |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| CNY75B      |                                                                                                       | 100 - 200<br>30                   | Lower CTR figures<br>I <sub>F</sub> = 1mA<br>V <sub>CE</sub> = 5V    |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| CNY75C      |                                                                                                       | 160 - 320<br>60                   |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| CQY80       |                                                                                                       | 50                                | I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 5V                        |                              |                                        | 30                                                   | 200                                                          |                                                            |               |             |  |  |  |  |  |  |
| H11AV1 NEW  |                                                                                                       | 100 - 300                         | I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 10V                       | 3.75 rms                     |                                        | 70                                                   | 50                                                           | 0.4<br>(I <sub>F</sub> = 20mA)<br>(I <sub>c</sub> = 2mA)   |               |             |  |  |  |  |  |  |
| H11AV2 NEW  |                                                                                                       | 50                                |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| H11AV3 NEW  |                                                                                                       | 20                                |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| IS201       |                                                                                                       | 75<br>10                          | Higher CTR figures<br>I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 10V | 5.0 d.c.                     |                                        | 30                                                   | 50                                                           | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>c</sub> = 2mA)   |               |             |  |  |  |  |  |  |
| IS202       |                                                                                                       | 125 - 250<br>30                   |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| IS203       |                                                                                                       | 225 - 450<br>50                   | Lower CTR figures<br>I <sub>F</sub> = 1mA<br>V <sub>CE</sub> = 10V   |                              |                                        | 70                                                   |                                                              | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>c</sub> = 2.5mA) |               |             |  |  |  |  |  |  |
| IS204       |                                                                                                       | 200 - 400<br>100                  |                                                                      |                              |                                        |                                                      |                                                              |                                                            |               |             |  |  |  |  |  |  |
| MOC8100     |                                                                                                       | 50<br>30 (0 - 70°C)               | I <sub>F</sub> = 1mA<br>V <sub>CE</sub> = 5V                         | 7.5 pk                       |                                        | 30                                                   |                                                              | 0.5<br>(I <sub>F</sub> = 1mA)<br>(I <sub>c</sub> = 0.1mA)  |               |             |  |  |  |  |  |  |

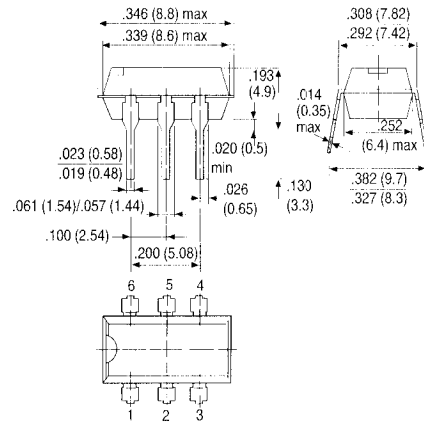
\* Note 1: To obtain a product tested to the above four safety approvals add "X" after basic type number e.g. 4N35X.  
To obtain 10mm lead spread add suffix "G" after full type number e.g. 4N35XG.

# Coupler Package Drawings

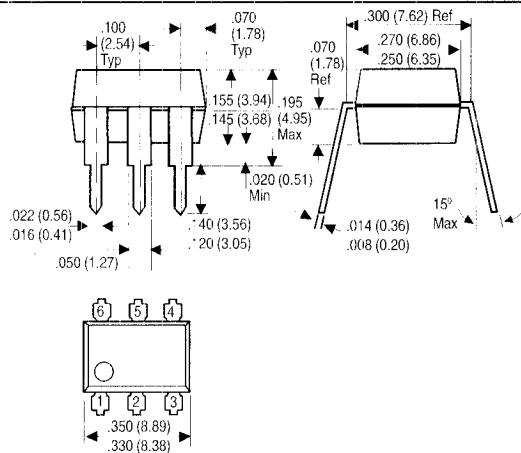
1



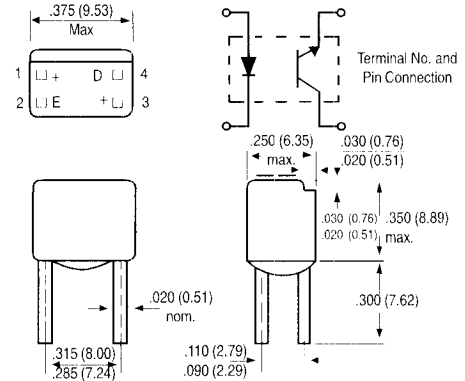
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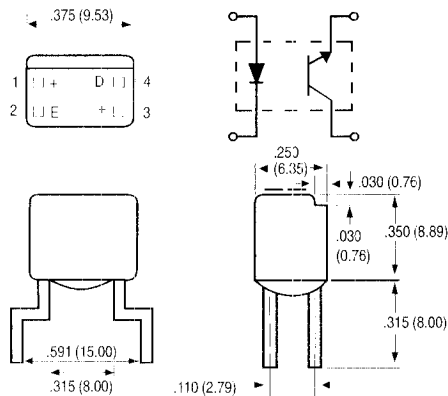
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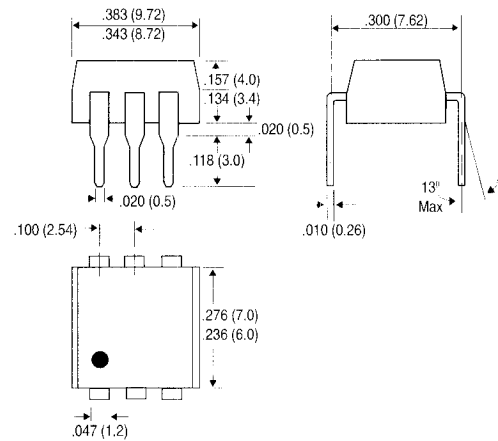
4



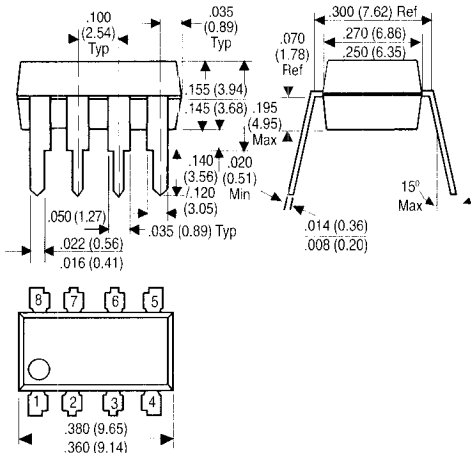
5



6



7



## 8



# Coupler Schematics

