

## IN-LINE PACKAGES

Four pins per channel with in line LED's and Transistors

| Part Number | Features                                                                           | Current Transfer Ratio<br>I <sub>F</sub> = 5mA<br>(%)              | Isolation Test Voltage<br>V RMS | Continuous Forward Current<br>Max (mA) | VBR LED<br>I <sub>R</sub> = 10 <sub>u</sub> A<br>Min (V) | BV <sub>CEO</sub><br>I <sub>C</sub> = 1mA<br>Min (V) | I <sub>CEO</sub> (Dark)<br>V <sub>CE</sub> = 24V<br>Max (nA) | V <sub>CE</sub> (Sat)<br>I <sub>F</sub> = 8mA<br>I <sub>C</sub> = 2.4mA<br>Max (V) | Schematic No. | Package No. |
|-------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------|----------------------------------------|----------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------|---------------|-------------|
| ISP321-1    | Optically Coupled pair with infrared LED, Emitter and NPN Silicon Photo Transistor | 50 - 600 CTR Selection Available<br>"GB" 100% Min<br>"BL" 200% Min | 5000                            | 50                                     | 5                                                        | 80                                                   | 100                                                          | 0.4                                                                                | 29            | 12          |
| ISP621-1    |                                                                                    |                                                                    | 55                              |                                        |                                                          |                                                      |                                                              |                                                                                    |               |             |
| ISP521-1    |                                                                                    |                                                                    | 2500                            |                                        |                                                          | 35                                                   |                                                              | 0.2 (I <sub>F</sub> = 20mA)<br>(I <sub>C</sub> = 1mA)                              |               |             |
| ISP817      |                                                                                    |                                                                    | 5000                            |                                        |                                                          |                                                      |                                                              |                                                                                    |               |             |
| ISP321-2    | Two Isolators in one Package Independently Isolated from each other                |                                                                    | 5000                            |                                        |                                                          | 80                                                   |                                                              | 0.4                                                                                | 28            | 13          |
| ISP621-2    |                                                                                    |                                                                    | 2500                            |                                        |                                                          | 55                                                   |                                                              |                                                                                    |               |             |
| ISP521-2    |                                                                                    |                                                                    |                                 |                                        |                                                          | 35                                                   |                                                              |                                                                                    |               |             |
| ISP827      |                                                                                    |                                                                    | 5000                            |                                        |                                                          | 80                                                   |                                                              |                                                                                    |               |             |
| ISP321-4    | Four Isolators in one Package Independently Isolated from each other               |                                                                    | 5000                            |                                        |                                                          | 80                                                   |                                                              | 0.4                                                                                | 27            | 14          |
| ISP621-4    |                                                                                    |                                                                    | 2500                            |                                        |                                                          | 55                                                   |                                                              |                                                                                    |               |             |
| ISP521-4    |                                                                                    |                                                                    |                                 |                                        |                                                          | 35                                                   |                                                              |                                                                                    |               |             |
| ISP847      |                                                                                    |                                                                    | 5000                            |                                        |                                                          | 80                                                   |                                                              |                                                                                    |               |             |

## AC Input

Single Channel, 6 and 4 Pin DIP

| Part Number | Features                                                                                                | Current Transfer Ratio Min<br>$I_F = \pm 10\text{mA}$ | Isolation Breakdown Voltage<br>V (RMS) | Continuous Forward Current<br>Max (mA) | $V_F$ LED<br>$I_F = \pm 10\text{mA}$<br>Max (V) | $BV_{CEO}$<br>$I_C = 1\text{mA}$<br>Min (V) | $I_{CEO}$ (Dark)<br>$V_{CE} = 10\text{V}$<br>Max (nA) | $V_{CE}$ (Sat)<br>$I_F = \pm 10\text{mA}$<br>$I_C = 0.5\text{mA}$<br>Max (V) | Schematic No. | Package No. |
|-------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------|----------------------------------------|-------------------------------------------------|---------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------|---------------|-------------|
| H11AA4      | Optically Coupled pair with two Infrared LED Emitter connected in Inverse Parallel and a NPN Transistor | 100                                                   | 2500                                   | 60                                     | 1.5                                             | 30                                          | 100                                                   | 0.4                                                                          | 32            | 3           |
| H11AA3      |                                                                                                         | 50                                                    |                                        |                                        |                                                 |                                             |                                                       |                                                                              |               |             |
| H11AA2      |                                                                                                         | 10                                                    |                                        |                                        |                                                 |                                             |                                                       |                                                                              |               |             |
| H11AA1      |                                                                                                         | 20                                                    |                                        |                                        |                                                 |                                             |                                                       |                                                                              |               |             |
| CNY35       |                                                                                                         | 10                                                    |                                        |                                        |                                                 |                                             |                                                       |                                                                              |               |             |
| IS604       |                                                                                                         | 50                                                    |                                        |                                        |                                                 |                                             |                                                       |                                                                              |               |             |
| ISP814 NEW  |                                                                                                         | 20<br>( $I_F = \pm 20\text{mA}$ )                     | 5000                                   | 50                                     | 1.4<br>( $I_F = \pm 20\text{mA}$ )              | 35                                          | 100<br>( $V_{CE} = 20\text{V}$ )                      | 0.2 ( $I_F = \pm 20\text{mA}$ )<br>( $I_C = 1\text{mA}$ )                    | 34            | 12          |

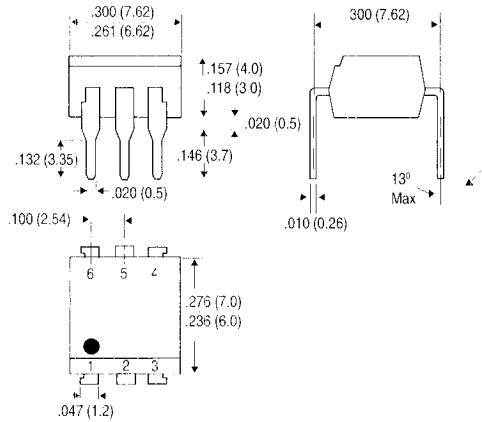
## Schmitt Trigger

Single Channel DIP, Microprocessor Compatible

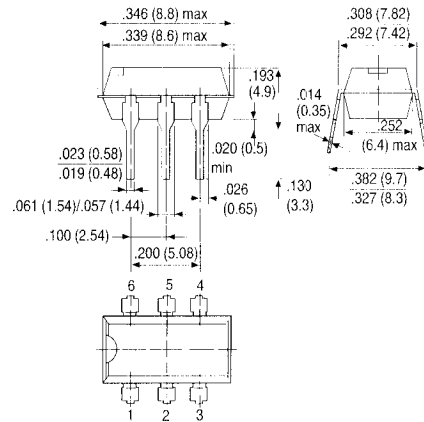
| Part Number | Features                                                                                     | Turn-on Threshold Current<br>$R_L = 270\Omega$<br>$V_{CC} = 5\text{V}$<br>Max (mA) | Isolation Breakdown Voltage<br>V (RMS) | Continuous Forward Current<br>Max (mA) | VBR LED<br>$I_R = 10\mu\text{A}$<br>Max (V) | Turn-off Threshold Current<br>$R_L = 270\Omega$<br>$V_{CC} = 5\text{V}$<br>Min (V) | Output Voltage<br>$R_L = 270\Omega$<br>$V_{CC} = 5\text{V}$<br>Max (V) | Schematic No. | Package No. |
|-------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------|-------------|
| H11L1       | Optically Coupled pair with Infrared LED Emitter & Microprocessor Compatible Schmitt Trigger | 1.6                                                                                | 5000                                   | 60                                     | 3                                           | 0.3                                                                                | 0.4                                                                    | 9             | 1           |
| H11L2       |                                                                                              | 10.0                                                                               |                                        |                                        |                                             |                                                                                    |                                                                        |               |             |
| H11L3       |                                                                                              | 5.0                                                                                |                                        |                                        |                                             |                                                                                    |                                                                        |               |             |
| H11L4       |                                                                                              | 2.0                                                                                |                                        |                                        |                                             |                                                                                    |                                                                        |               |             |
| IS609       |                                                                                              | 1.6                                                                                |                                        |                                        |                                             |                                                                                    |                                                                        |               |             |

# Coupler Package Drawings

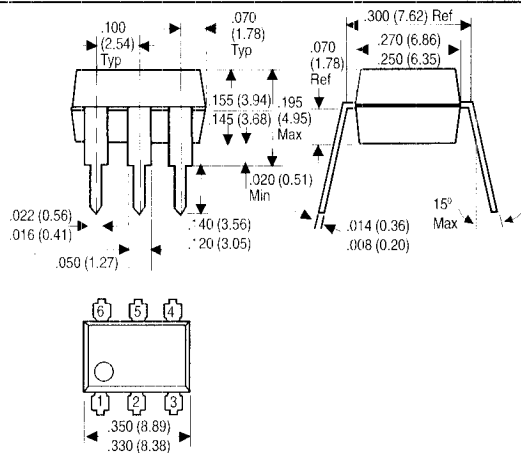
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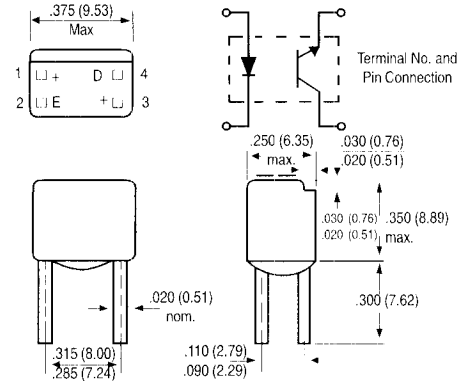
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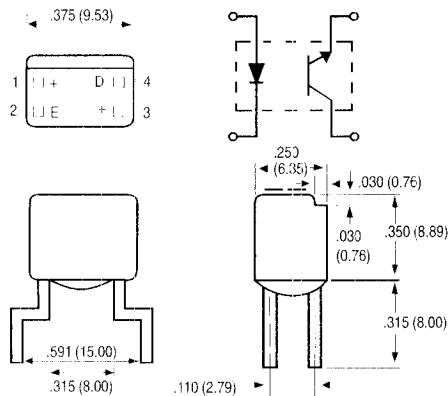
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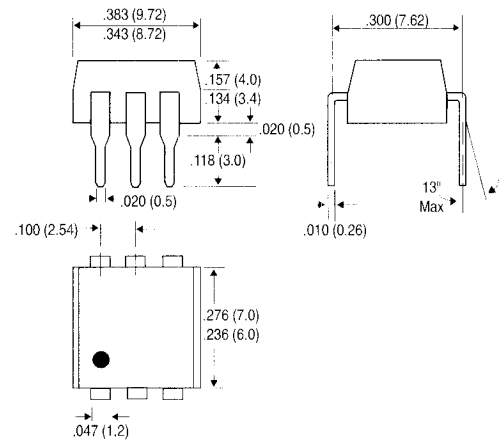
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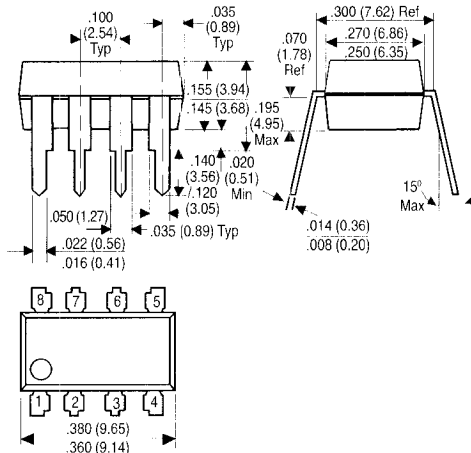
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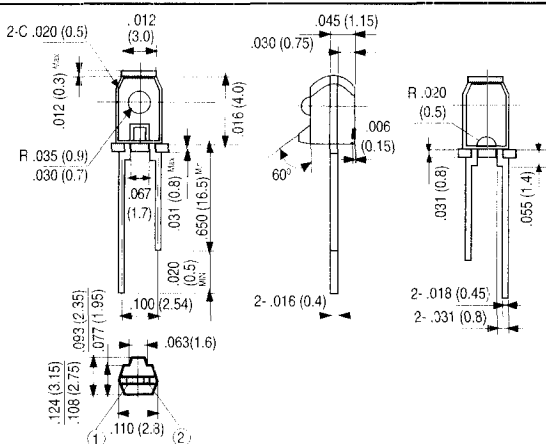
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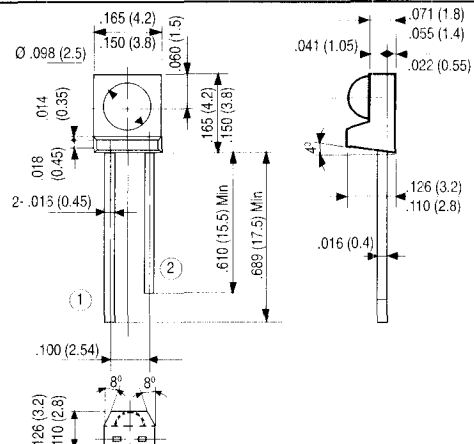
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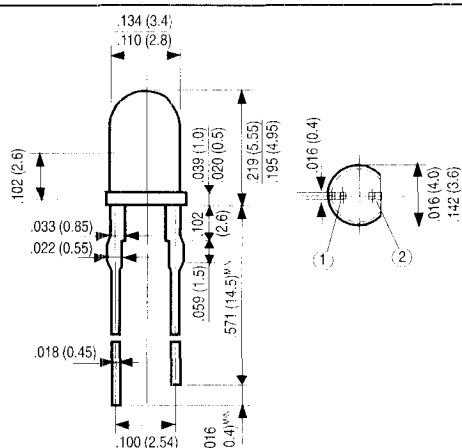
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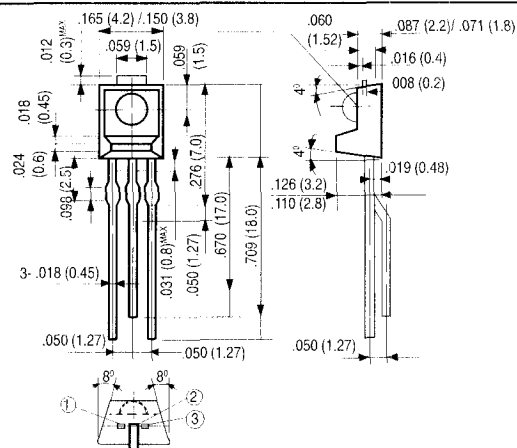
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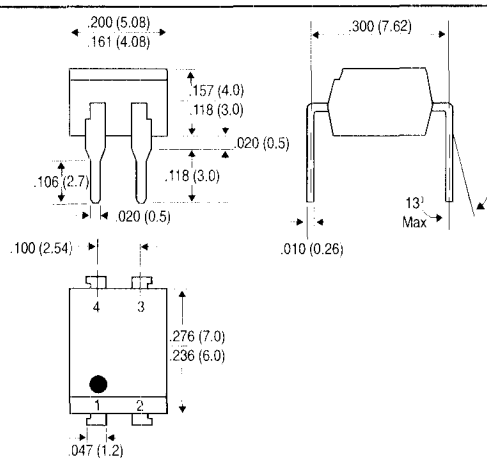
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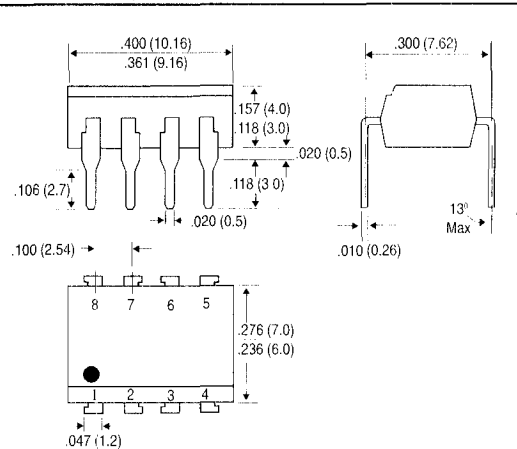
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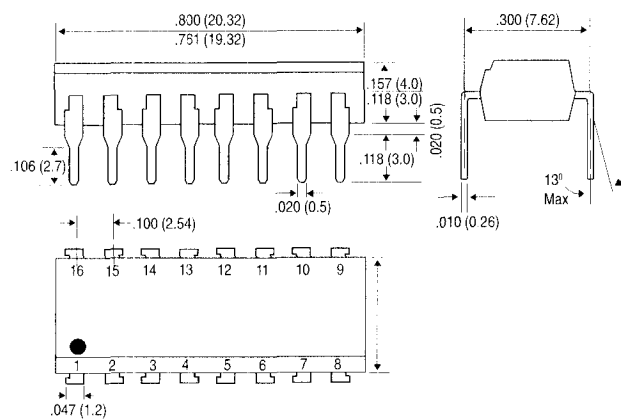
12



15



14



# Coupler Schematics

