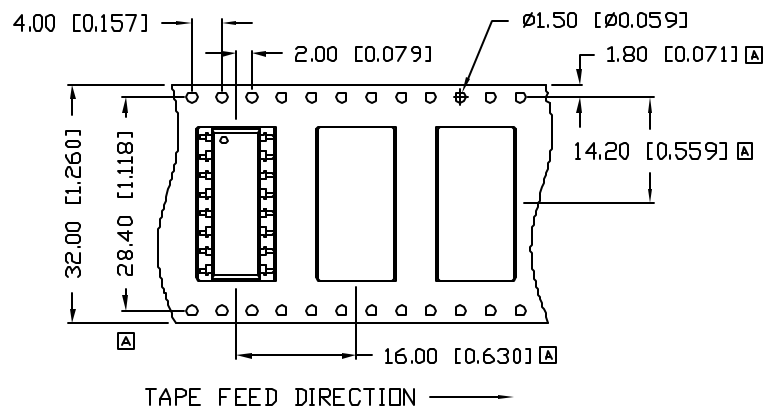
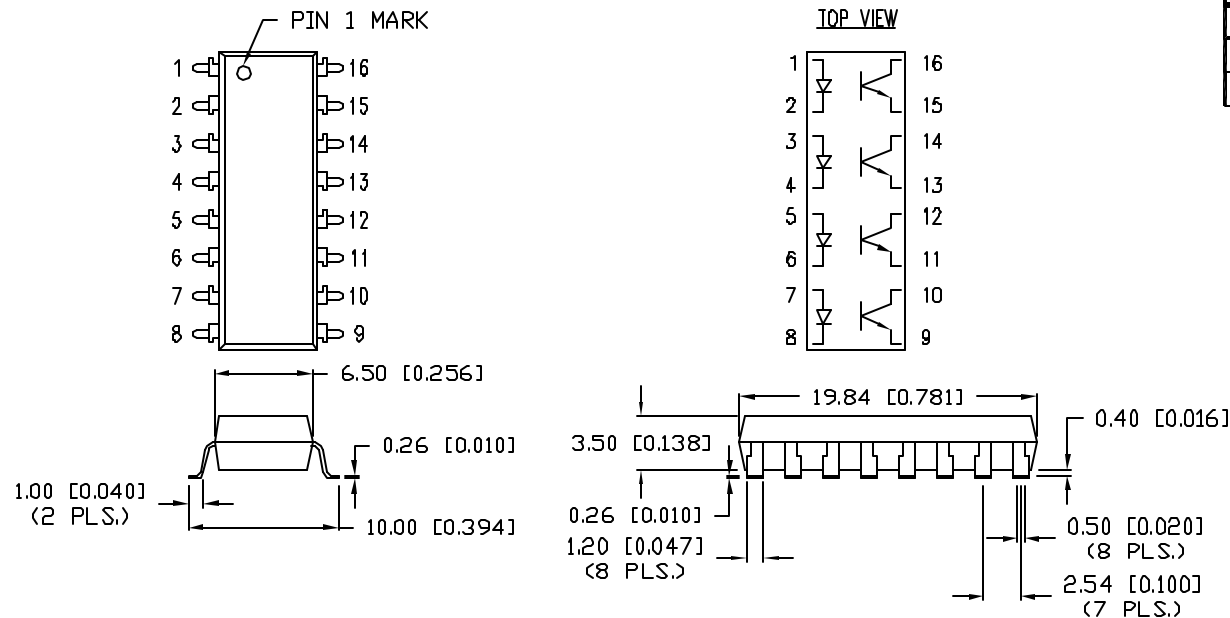


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| PART NUMBER       |                                     | REV.    |
| OCP-PCT4116/E-TR1 |                                     | B       |
| REV.              | E.C.N. NUMBER AND REVISION COMMENTS | DATE    |
| A                 | E.C.N. #11098.                      | 2.24.04 |
| B                 | E.C.N. #11148.                      | 5.16.07 |



1. 1,3,5,7. ANODE/CATHODE  
2,4,6,8. CATHODE/ANODE  
9,11,13,15. EMITTER  
10,12,14,16. COLLECTOR



\*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN.=+DECIMAL PRECISION, MAX.=+0.00  
-0.00 DECIMAL PRECISION

|                                                                                                            |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                       |
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| REV.<br>B                                                                                                  | PART NUMBER<br>OCP-PCT4116/E-TR1 | <p><b>CONFIDENTIAL INFORMATION</b></p> <p>THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.</p> <p><b>RELIABILITY NOTE</b></p> <p>OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.</p> |  <p>290 E. HELEN ROAD<br/>PALATINE, IL 60067-6976<br/>PHONE: +1.847.359.2790<br/>US WEB: <a href="http://www.lumex.com">www.lumex.com</a><br/>TW WEB: <a href="http://www.lumex.com.tw">www.lumex.com.tw</a></p> |
| 16 PIN SURFACE MOUNT QUAD CHANNEL PHOTOCOUPLER,<br>TRANSISTOR OUTPUT,<br>WITHOUT EXTERNAL BASE CONNECTION. |                                  | <p><b>DRAWN BY:</b><br/>JC</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p><b>CHECKED BY:</b></p> <p><b>APPROVED BY:</b></p> <p><b>DATE:</b> 1.6.04<br/><b>PAGE:</b> 1 OF 2<br/><b>SCALE:</b> N/A</p>                                                                                                                                                                         |

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| PART NUMBER       |                                     | REV. |
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| REV.              | E.C.N. NUMBER AND REVISION COMMENTS | DATE |
|                   | PLEASE REFER TO PAGE 1              |      |

## ELECTRO-OPTICAL CHARACTERISTICS (Ta=25°C)

| PARAMETER                            | SYMBOL               | CONDITIONS                                                       | MIN                | TYP              | MAX              | UNITS |
|--------------------------------------|----------------------|------------------------------------------------------------------|--------------------|------------------|------------------|-------|
| I FORWARD VOLTAGE                    | V <sub>F</sub>       | I <sub>F</sub> =±20mA                                            | —                  | 1.2              | 1.4              | V     |
| PEAK FORWARD VOLTAGE                 | V <sub>FM</sub>      | I <sub>FM</sub> =±0.5A                                           | —                  | —                | 3.5              | V     |
| TERMINAL CAPACITANCE                 | C <sub>i</sub>       | V=0, f=1kHz                                                      | —                  | 30               | —                | pF    |
| Q COLLECTOR DARK CURRENT             | I <sub>CE0</sub>     | V <sub>CE</sub> =20V, I <sub>F</sub> =0                          | —                  | —                | 10 <sup>-7</sup> | A     |
| T CURRENT TRANSFER RATIO             | CRT                  | I <sub>F</sub> =±1mA, V <sub>CE</sub> =5V                        | 60                 | —                | 600              | %     |
| COLLECTOR-EMITTER SATURATION VOLTAGE | V <sub>CE(sat)</sub> | I <sub>F</sub> =±20mA, I <sub>C</sub> =1mA                       | —                  | 0.1              | 0.3              | V     |
| ISOLATION RESISTANCE                 | R <sub>ISO</sub>     | DC500V                                                           | 5x10 <sup>10</sup> | 10 <sup>11</sup> | —                | ohm   |
| FLOATING CAPACITANCE                 | C <sub>f</sub>       | V=0, f=1MHz                                                      | —                  | 0.6              | 1.0              | pF    |
| CUT-OFF FREQUENCY                    | f <sub>c</sub>       | V <sub>CE</sub> =5V, I <sub>C</sub> =2mA, R <sub>L</sub> =100ohm | —                  | 80               | —                | kHz   |
| RESPONSE TIME (RISE)                 | t <sub>r</sub>       | V <sub>CE</sub> =2V, I <sub>C</sub> =2mA, R <sub>L</sub> =100ohm | —                  | 5                | 20               | μS    |
| RESPONSE TIME (FALL)                 | t <sub>f</sub>       | V <sub>CE</sub> =2V, I <sub>C</sub> =2mA, R <sub>L</sub> =100ohm | —                  | 4                | 20               | μS    |

I=INPUT, O=OUTPUT, T=TRANSFER CHARACTERISTICS.

## ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

| PARAMETER                   | SYMBOL           | MAX         | UNITS |
|-----------------------------|------------------|-------------|-------|
| I FORWARD CURRENT           | I <sub>F</sub>   | 50          | mA    |
| PEAK FORWARD CURRENT        | I <sub>FM</sub>  | 1           | A     |
| POWER DISSIPATION           | P <sub>D</sub>   | 70          | mW    |
| O COLLECTOR-EMITTER VOLTAGE | V <sub>CEO</sub> | 60          | V     |
| EMITTER-COLLECTOR VOLTAGE   | V <sub>EC0</sub> | 6           | V     |
| COLLECTOR CURRENT           | I <sub>C</sub>   | 50          | mA    |
| COLLECTOR POWER DISSIPATION | P <sub>C</sub>   | 150         | mW    |
| TOTAL POWER DISSIPATION     | P <sub>tot</sub> | 200         | mW    |
| ISOLATION VOLTAGE 1 MIN.    | V <sub>ISO</sub> | 5000        | V RMS |
| OPERATING TEMP.             | T <sub>opr</sub> | -30 TO +100 | °C    |
| STORAGE TEMP.               | T <sub>stg</sub> | -55 TO +125 | °C    |
| SOLDERING TEMP.             | T <sub>sol</sub> | +260        | °C    |
| 2.0mm FROM BODY             |                  | 10 SEC. MAX |       |

I=INPUT, O=OUTPUT.

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|                                                                                                            |                   |                                                                                                                                                                                                                                                                                                                              |  |                                                                                       |             |                                                                                                                             |                                            |
|------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
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|                                                                                                            |                   |                                                                                                                                                                                                                                                                                                                              |  | JC                                                                                    |             |                                                                                                                             |                                            |