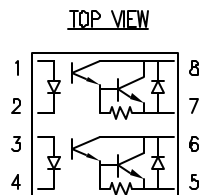
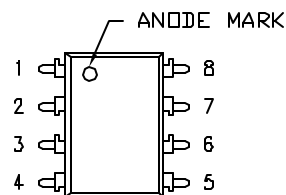


UNCONTROLLED DOCUMENT

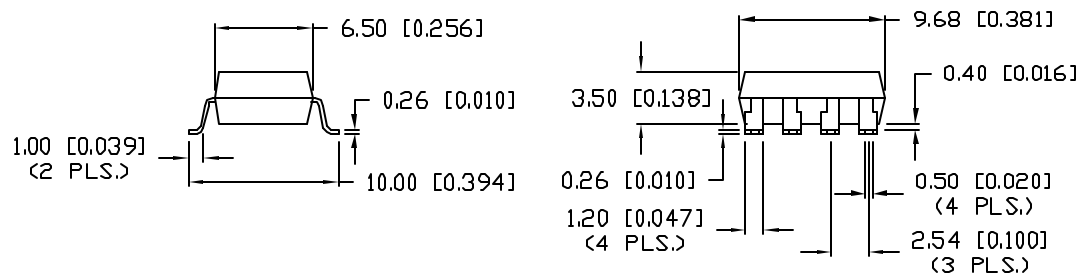
PART NUMBER  
OCP-PCD218/E-TRREV.  
C

| REV. | E.C.N. NUMBER AND REVISION COMMENTS | DATE    |
|------|-------------------------------------|---------|
| A    | E.C.N. #10BRDR. & #10776.           | 8.16.01 |
| B    | E.C.N. #10815.                      | 12.3.01 |
| C    | E.C.N. #11148.                      | 5.15.07 |

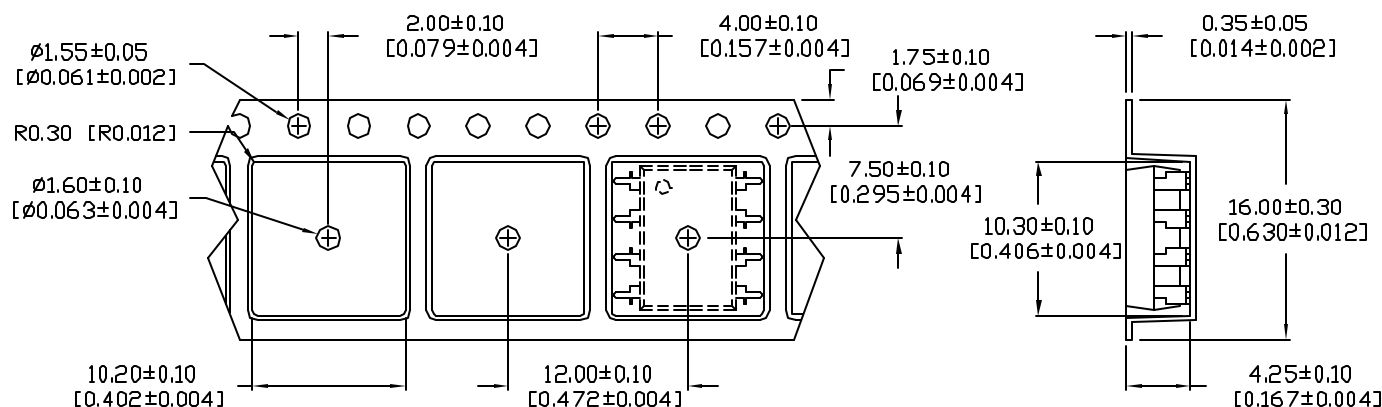
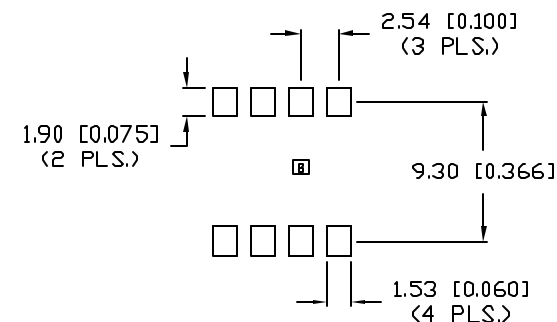


## NOTES:

- 1,3. ANODE  
2,4. CATHODE  
5,7. EMITTER  
6,8. COLLECTOR



## RECOMMENDED SOLDER PAD LAYOUT



TAPE FEED DIRECTION →

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

REV.  
CPART NUMBER  
OCP-PCD218/E-TR

CONFIDENTIAL INFORMATION  
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.

## RELIABILITY NOTE

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.



290 E. HELEN ROAD  
PALATINE, IL 60067-6976  
PHONE: +1.847.359.2790  
US WEB: www.lumex.com  
TW WEB: www.lumex.com.tw

EIGHT PIN SURFACE MOUNT DUAL CHANNEL PHOTOCOUPLER,  
PHOTODARLINGTON OUTPUT, NO EXTERNAL BASE CONNECTION.

|                 |             |              |               |
|-----------------|-------------|--------------|---------------|
| DRAWN BY:<br>JC | CHECKED BY: | APPROVED BY: | DATE: 9.29.99 |
|                 |             |              | PAGE: 1 OF 2  |
|                 |             |              | SCALE: N/A    |

ELECTRO-OPTICAL CHARACTERISTICS (T<sub>a</sub>=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     |
|   | REVERSE CURRENT                      | I <sub>R</sub>       | V <sub>R</sub> =4V                                                | -                  | -   | 10               | μA    |
|   | TERMINAL CAPACITANCE                 | C <sub>t</sub>       | V=0, f=1kHz                                                       | -                  | 30  | -                | pF    |
| Q | COLLECTOR DARK CURRENT               | I <sub>CEO</sub>     | V <sub>CE</sub> =200V, I <sub>F</sub> =0                          | -                  | -   | 10 <sup>-6</sup> | A     |
| T | CURRENT TRANSFER RATIO               | CRT                  | I <sub>F</sub> =1mA, V <sub>CE</sub> =2V                          | 600                | -   | 9000             | %     |
|   | COLLECTOR-EMITTER SATURATION VOLTAGE | V <sub>CE(sat)</sub> | I <sub>F</sub> =20mA, I <sub>C</sub> =5mA                         | -                  | -   | 1.5              | V     |
|   | ISOLATION RESISTANCE                 | R <sub>iso</sub>     | DC500V                                                            | 5x10 <sup>10</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  | -                  | 7   | -                | kHz   |
|   | RESPONSE TIME (RISE)                 | t <sub>r</sub>       | V <sub>CE</sub> =2V, I <sub>C</sub> =20mA, R <sub>L</sub> =100ohm | -                  | 60  | 300              | μS    |
|   | RESPONSE TIME (FALL)                 | t <sub>f</sub>       | V <sub>CE</sub> =2V, I <sub>C</sub> =20mA, R <sub>L</sub> =100ohm | -                  | 50  | 250              | μS    |

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

ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)

|   | PARAMETER                   | SYMBOL           | MAX         | UNITS |
|---|-----------------------------|------------------|-------------|-------|
| I | FORWARD CURRENT             | I <sub>F</sub>   | 50          | mA    |
|   | PEAK FORWARD CURRENT        | I <sub>FM</sub>  | 1           | A     |
|   | REVERSE VOLTAGE             | V <sub>R</sub>   | 6           | V     |
|   | POWER DISSIPATION           | P <sub>D</sub>   | 70          | mW    |
| Q | COLLECTOR-EMITTER VOLTAGE   | V <sub>CEQ</sub> | 300         | V     |
|   | EMITTER-COLLECTOR VOLTAGE   | V <sub>ECQ</sub> | 0.1         | V     |
|   | COLLECTOR CURRENT           | I <sub>C</sub>   | 150         | mA    |
|   | COLLECTOR POWER DISSIPATION | P <sub>C</sub>   | 200         | mW    |
|   | TOTAL POWER DISSIPATION     | P <sub>tot</sub> | 200         | mW    |
|   | ISOLATION VOLTAGE 1 MIN.    | V <sub>iso</sub> | 5000        | Vrms  |
|   | 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, Q=OUTPUT.

\*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 -0.00, MAX.= +0.00 -DECIMAL PRECISION

REV.

PART NUMBER

C

OCP-PCD218/E-TR

EIGHT PIN SURFACE MOUNT DUAL CHANNEL PHOTOCOUPLER,  
PHOTODARLINGTON OUTPUT, NO EXTERNAL BASE CONNECTION.

## CONFIDENTIAL INFORMATION

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.

## RELIABILITY NOTE

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.

290 E. HELEN ROAD  
PALATINE, IL 60067-6976  
PHONE: +1.847.359.2790  
US WEB: www.lumex.com  
TW WEB: www.lumex.com.tw

DRAWN BY:

CHECKED BY:

APPROVED BY:

DATE: 9.29.99

JC

PAGE: 2 OF 2

SCALE: N/A