

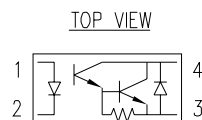
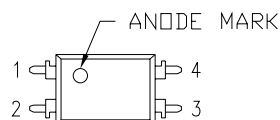
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PART NUMBER  
OCP-PCD114/X-TR

REV.

REV. E.C.N. NUMBER AND REVISION COMMENTS

DATE

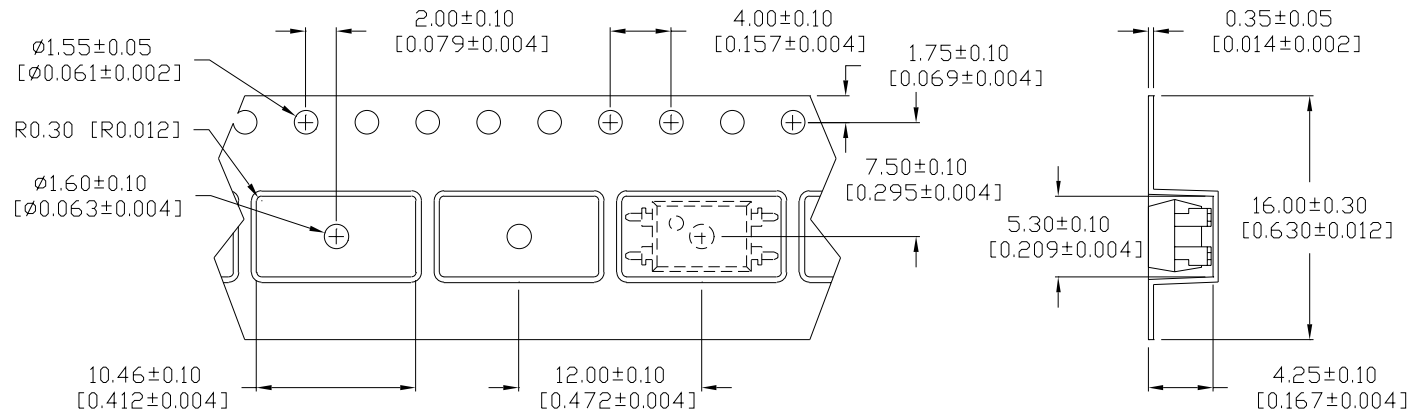
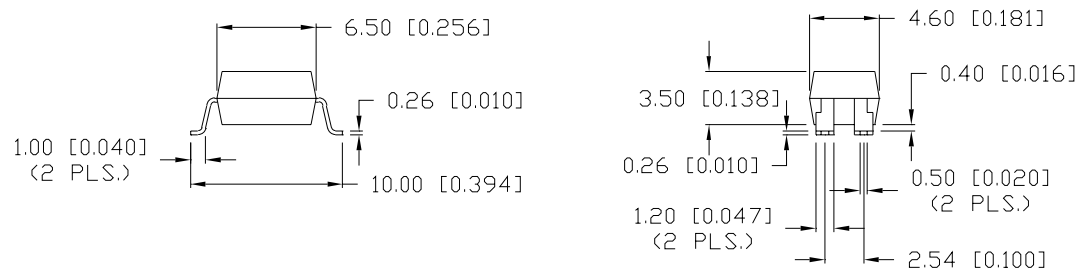


NOTES:

1. ANODE
2. CATHODE
3. EMITTER
4. COLLECTOR

CAUTION: STATIC SENSITIVE DEVICE  
FOLLOW PROPER E.S.D. HANDLING PROCEDURES  
WHEN WORKING WITH THIS PART.

| PART NUMBER TABLE |              |
|-------------------|--------------|
| PART=             | CTR (%)      |
| /X                |              |
| /A                | 600 TO 2000  |
| /B                | 1500 TO 4000 |
| /C                | 3000 TO 6000 |
| /D                | 5000 TO 9000 |
| /E                | 600 TO 9000  |



TAPE FEED DIRECTION →

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\*UNLESS OTHERWISE SPECIFIED TOLERANCE IS  $\pm 0.25\text{mm}$  ( $\pm 0.010''$ )

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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.

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FOUR PIN SURFACE MOUNT SINGLE CHANNEL PHOTOCOUPLER,  
PHOTODARLINGTON OUTPUT, NO EXTERNAL BASE CONNECTION.

DRAWN BY: CHECKED BY: APPROVED BY: DATE: 9-29-99

PAGE: 1 OF 2

SCALE: N/A

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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     |
|   | 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    |
| O | COLLECTOR DARK CURRENT               | I <sub>CE0</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, 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                |
|   | REVERSE VOLTAGE             | V <sub>R</sub>   | 6             | V                |
|   | POWER DISSIPATION           | P <sub>D</sub>   | 70            | mW               |
| O | COLLECTOR-EMITTER VOLTAGE   | V <sub>CE0</sub> | 300           | V                |
|   | EMITTER-COLLECTOR VOLTAGE   | V <sub>EC0</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          | V <sub>RMS</sub> |
|   | 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   |                  |

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