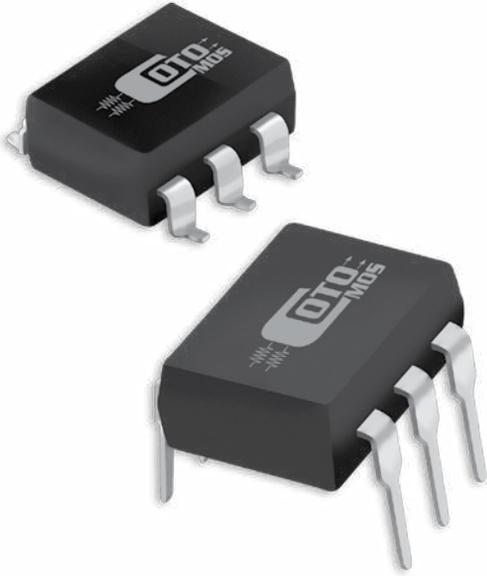


### CotoMOS® CT474/CS474

The CT474 and CS474 feature current switching capability to 90mA with a low on resistance of 50Ω Maximum. Designed for Security, Measurement and Instrumentation applications the CotoMOS® relay is capable of handling 400V load conditions. If your requirements are different please contact your Coto Applications Engineer for assistance through [www.cotorelay.com](http://www.cotorelay.com).

### CT474/CS474 Features

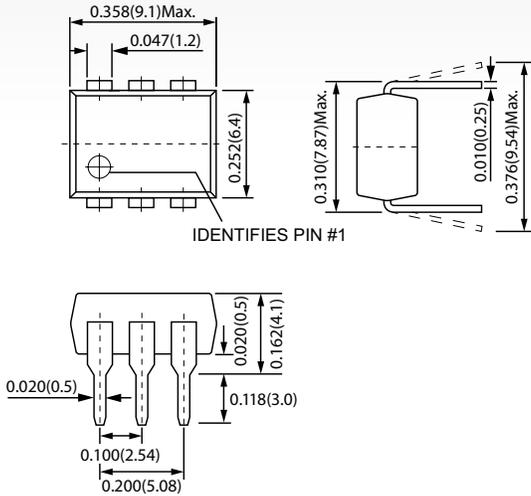
- ▶ Contact Form: 1B
- ▶ Load Voltage: 400V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: 90mA Maximum
- ▶ On-Resistance: 50Ω Maximum
- ▶ Low Off-State Leakage Current: 10μA Maximum
- ▶ I/O Breakdown Voltage: 1500Vrms Minimum
- ▶ Suffix -H for I/O Breakdown Voltage: 5000Vrms Minimum



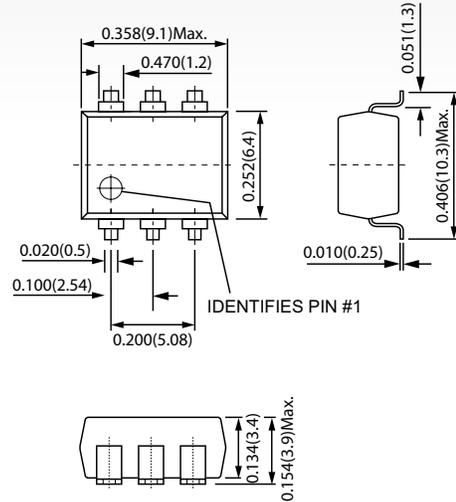
## DIMENSIONS

*in Inches (Millimeters)*

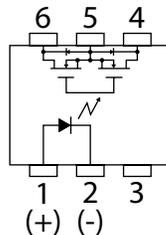
CT474



CS474



### TERMINAL IDENTIFICATION



1: Anode (LED)  
2: Cathode (LED)  
3: NC

4,6: Drain (MOS FET)  
5: Source (MOS FET)

| CT474/CS474 MAXIMUM RATINGS (Ambient Temperature: 25°C) |                   |                   |            |
|---|-------------------|-------------------|------------|
| Parameters  | Symbol            | Units             | Value      |
| <b>INPUT SPECIFICATIONS</b>                             |                   |                   |            |
| Continuous LED Current                                  | I <sub>F</sub>    | mA                | 50         |
| Peak LED Current  | I <sub>FP</sub>   | mA                | 500        |
| LED Reverse Voltage                                     | V <sub>R</sub>    | V                 | 5          |
| Input Power Dissipation                                 | P <sub>in</sub>   | mW                | 75         |
| <b>OUTPUT SPECIFICATIONS</b>                            |                   |                   |            |
| Load Voltage  | V <sub>L</sub>    | V (AC peak or DC) | 400        |
| Load Current  | I <sub>L</sub>    | mA                | 90         |
| Peak Load Current                                       | I <sub>Peak</sub> | A                 | 0.6        |
| Output Power Dissipation                                | P <sub>Out</sub>  | mW                | 450        |
| <b>RELAY SPECIFICATIONS</b>                             |                   |                   |            |
| Total Power Dissipation                                 | P <sub>T</sub>    | mW                | 500        |
| I/O Breakdown Voltage                                   | V <sub>I/O</sub>  | V <sub>rms</sub>  | 1500       |
| Operating Temperature                                   | T <sub>Opr</sub>  | °C                | -40 ~ +85  |
| Storage Temperature                                     | T <sub>Stg</sub>  | °C                | -40 ~ +100 |

| CT474/CS474 ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C) |                    |   |       |                 |      |     |
|---|--------------------|---|-------|-----------------|------|-----|
| Parameters  | Symbol             | Test Conditions   | Units | Min             | Typ  | Max |
| <b>INPUT</b>  |                    |   |       |                 |      |     |
| LED Forward Voltage   | V <sub>F</sub>     | I <sub>F</sub> =10mA  | V     | 1.0             |      | 1.5 |
| Operation LED Current   | I <sub>F On</sub>  |   | mA    |                 | 0.9  | 3.0 |
| Recovery LED Voltage  | V <sub>F Off</sub> |   | V     | 0.5             |      |     |
| <b>OUTPUT</b>   |                    |   |       |                 |      |     |
| On-Resistance Drain to Drain                                      | R <sub>On</sub>    | I <sub>F</sub> =10mA, I <sub>L</sub> =Rating<br>Time to flow is within 1 sec. | Ω     |                 | 30   | 50  |
| Off-State Leakage Current   | I <sub>Leak</sub>  | V <sub>L</sub> =400V  | μA    |                 |      | 10  |
| Output Capacitance  | C <sub>Out</sub>   | V <sub>L</sub> =0V, f=1MHz  | pF    |                 | 165  |     |
| <b>TRANSMISSION</b>   |                    |   |       |                 |      |     |
| Turn-On Time  | T <sub>On</sub>    | I <sub>F</sub> =10mA, I <sub>L</sub> =Rating                                  | ms    |                 | 0.35 | 2.0 |
| Turn-Off Time   | T <sub>Off</sub>   |   | ms    |                 | 0.05 | 1.0 |
| <b>COUPLED</b>  |                    |   |       |                 |      |     |
| I/O Insulation Resistance   | R <sub>I/O</sub>   |   | Ω     | 10 <sup>9</sup> |      |     |
| I/O Capacitance   | C <sub>I/O</sub>   | f=1MHz  | pF    |                 | 1.3  |     |

**Environmental Ratings:**

Operating Temp: -40°C to +85°C; Storage Temp: -40 to +100 C.  
All electrical parameters measured at 25° C unless otherwise specified.