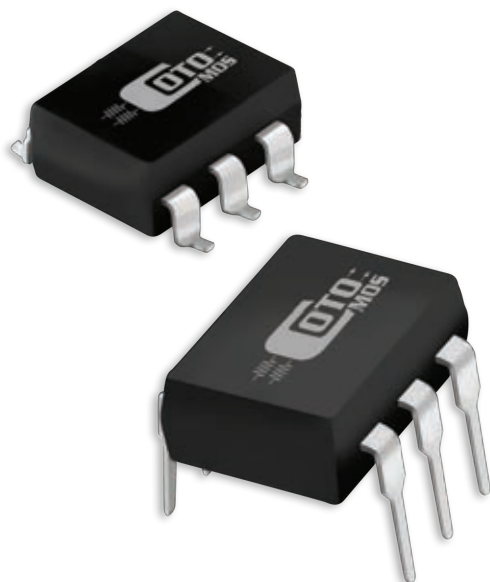


## CotoMOS CT136/CS136

The CT136 and CS136 combine Coto quality and economy in an industry standard 6 pin DIP package. Both the CT136 and the CS136 offer low on resistance and high load current. The CT136 utilizes a thru hole lead configuration, while the CS136 offers a surface mount option when the application requires it. Both relays are ideally suited to the needs of Test and Measurement, Industrial, and Telecommunications.

### CT136/CS136 Features

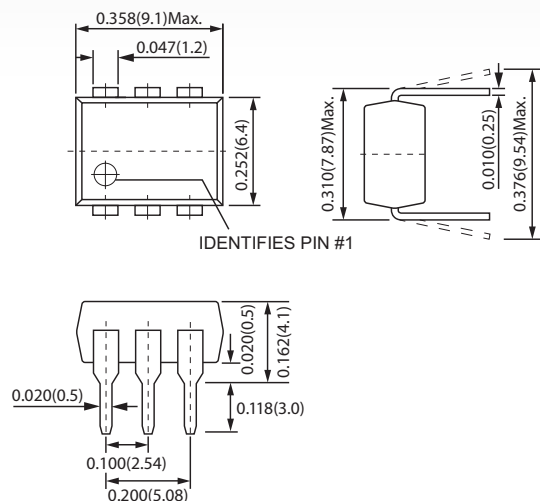
- ▶ Contact Form: 1a
- ▶ Load Voltage: 60V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: 2.5A Maximum
- ▶ On-Resistance: 0.14Ω Maximum
- ▶ Low Off-State Leakage Current: 1.0μA Maximum
- ▶ I/O Breakdown Voltage: 1500Vrms Minimum
- ▶ Suffix - H for I/O Breakdown Voltage: 5000Vrms Minimum



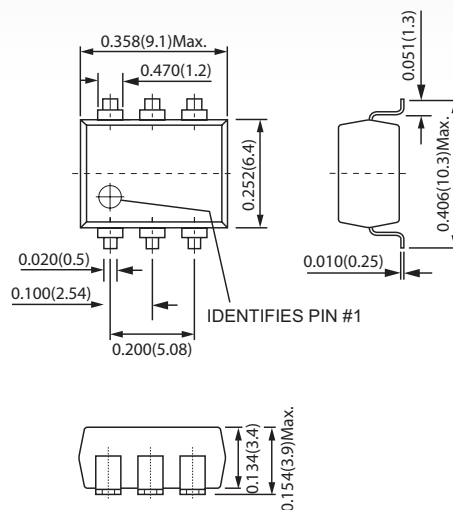
## DIMENSIONS

*in Inches (Millimeters)*

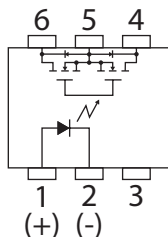
CT136



CS136



### TERMINAL IDENTIFICATION



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

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

## CT136/CS136 MAXIMUM RATINGS (Ambient Temperature: 25°C)

| Parameters                   | Symbol            | Units | Value               |
|------------------------------|-------------------|-------|---------------------|
| <b>INPUT SPECIFICATIONS</b>  |                   |       |                     |
| Continuous LED Current       | I <sub>F</sub>    | mA    | 50mA                |
| Peak LED Current             | I <sub>FP</sub>   | mA    | 500mA               |
| LED Reverse Voltage          | V <sub>R</sub>    | V     | 5V                  |
| Input Power Dissipation      | P <sub>in</sub>   | mW    | 75mW                |
| <b>OUTPUT SPECIFICATIONS</b> |                   |       |                     |
| Load Voltage                 | V <sub>L</sub>    | V     | 60V (AC peak or DC) |
| Load Current                 | I <sub>L</sub>    | A     | 2.5A                |
| Peak Load Current            | I <sub>Peak</sub> | A     | 6.0A                |
| Output Power Dissipation     | P <sub>Out</sub>  | mW    | 500mW               |
| <b>RELAY SPECIFICATIONS</b>  |                   |       |                     |
| Total Power Dissipation      | P <sub>T</sub>    | mW    | 550mW               |
| I/O Breakdown Voltage        | V <sub>I/O</sub>  | V     | 1500Vrms            |
| Operating Temperature        | T <sub>opr</sub>  |       | -40°C ~ +85°C       |
| Storage Temperature          | T <sub>stg</sub>  |       | -40°C ~ +100°C      |

## CT136/CS136 ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)

| Parameters                   | Symbol             | Test Conditions                                                               | Units | Min               | Typ  | Max  |
|------------------------------|--------------------|-------------------------------------------------------------------------------|-------|-------------------|------|------|
| INPUT                        |                    |                                                                               |       |                   |      |      |
| LED Forward Voltage          | V <sub>F</sub>     | I=10mA                                                                        | V     | 1.0               |      | 1.5  |
| Operation LED Current        | I <sub>F On</sub>  |                                                                               | mA    |                   | 1.5  | 3.0  |
| Recovery LED Voltage         | V <sub>F Off</sub> |                                                                               | V     | 0.5               |      |      |
| OUTPUT                       |                    |                                                                               |       |                   |      |      |
| 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     |                   | 0.09 | 0.14 |
| Off-State Leakage Current    | I <sub>Leak</sub>  | I <sub>F</sub> =0mA, V <sub>L</sub> =50V                                      | μA    |                   |      | 1.0  |
| Output Capacitance           | C <sub>Out</sub>   | V <sub>L</sub> =0V, f=1MHz                                                    | pF    |                   | 470  |      |
| TRANSMISSION                 |                    |                                                                               |       |                   |      |      |
| Turn-On Time                 | T <sub>On</sub>    | I <sub>F</sub> =10mA, I <sub>L</sub> =Rating                                  | ms    |                   | 0.6  | 5.0  |
| Turn-Off Time                | T <sub>Off</sub>   |                                                                               | ms    |                   | 0.04 | 2.0  |
| COUPLED                      |                    |                                                                               |       |                   |      |      |
| I/O Insulation Resistance    | R <sub>I/O</sub>   |                                                                               | Ω     | 5*10 <sup>9</sup> |      |      |
| I/O Capacitance              | C <sub>I/O</sub>   | f=1MHz                                                                        | pF    |                   | 1.0  |      |

### 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.