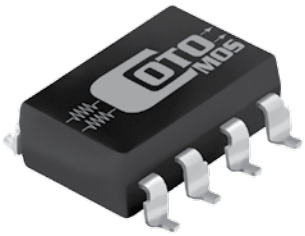
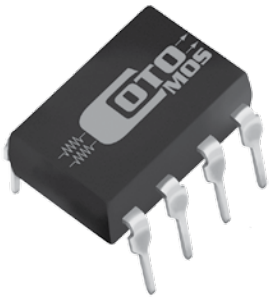




## CotoMOS® CTA17/CSA17

The CTA17 and CSA17 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.

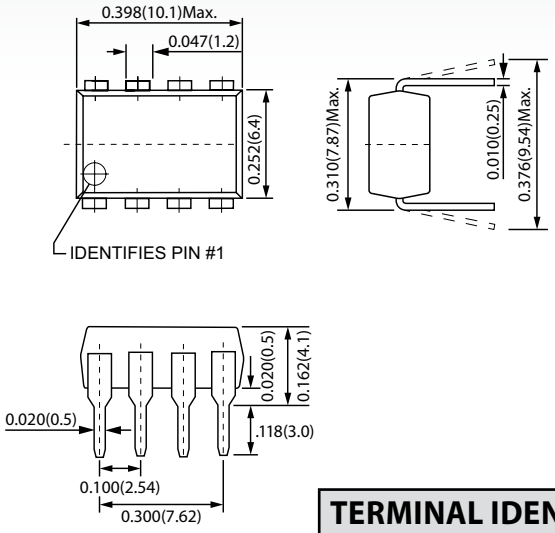
## CTA17/CSA17 Features

- Contact Form: 1A
- Load Voltage: 350V Minimum
- Operation LED Current: 3.0mA Maximum
- Load Current: 120mA Maximum
- On-Resistance: 30Ω Maximum
- Low Off-State Leakage Current: 1µA Maximum
- I/O Breakdown Voltage: 3750Vrms Minimum

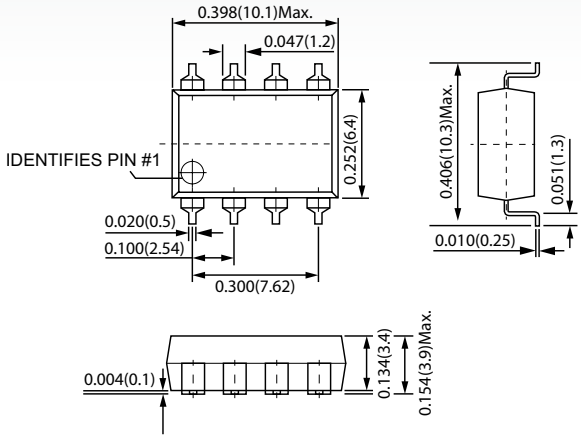
## DIMENSIONS

*in Millimeters*

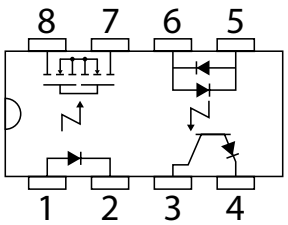
### CTA17




### CSA17




## TERMINAL IDENTIFICATION




| | |
|---|---|
| 1: +LED - MOS Relay | 5: LED - Phototransistor +/- |
| 2: -LED - MOS Relay | 6: LED - Phototransistor -/+ |
| 3: Collector - Phototransistor +/- | 7: Load - MOS Relay Output |
| 4: Emitter - Phototransistor -/+ | 8: Load - MOS Relay Output |

tel: (401) 943.2686 | fax: (401) 942.0920

ПРОМЭЛЕКТРОНИКА / sales@prom-elec.com

## CTA17/CSA17 MAXIMUM RATINGS (Ambient Temperature: 25°C)

| Parameters | Symbol | Units | Value |
|---|---|---|---|
| **INPUT SPECIFICATIONS** | | | |
| Continuous LED Current | $I_F$ | mA | 50mA |
| Peak LED Current | $I_{FP}$ | mA | 1A |
| LED Reverse Voltage | $V_R$ | V | 5V |
| Input Power Dissipation | $P_{in}$ | mW | 150mW |
| **OUTPUT SPECIFICATIONS** | | | |
| Load Voltage | $V_L$ | V | 350V (AC peak or DC) |
| Load Current | $I_L$ | A | 120mA |
| Peak Load Current | $I_{Peak}$ | A | 350mA |
| Output Power Dissipation | $P_{Out}$ | mW | 450mW |
| **RELAY SPECIFICATIONS** | | | |
| Total Power Dissipation | $P_T$ | mW | 600mW |
| I/O Breakdown Voltage | $V_{I/O}$ | V | 3750Vrms |

## CTA17/CSA17 RELAY ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)

| | Parameters | Symbol | Test Conditions | Units | Min | Typ | Max |
|---|---|---|---|---|---|---|---|
| **Input Pin (1,2)** | LED Forward Voltage | $V_F$ | $I_F$=10mA | V | 0.9 | 1.2 | 1.4 |
| | Reverse Current | $I_R$ | $V_R$=5V | uA | | | 10 |
| | Operation LED Current | $I_{F\ On}$ | | mA | | 0.7 | 3.0 |
| | Recovery LED Voltage | $V_{F\ Off}$ | | V | 0.5 | 1.1 | |
| **Output Pin (7,8)** | Load Voltage (Peak) | $V_L$ | | V | 350 | | |
| | Load Current (Continuous) | $I_L$ | | mA | | | 120 |
| | Peak Load Current | $I_{Peak}$ | | mA | | | 350 |
| | On-Resistance | $R_{On}$ | | Ω | | 19 | 30 |
| | Off-State Leakage Current | $I_{Leak}$ | $V_L$=350V | µA | | | 1.0 |
| **TRANSMISSION** | | | | | | | |
| | Turn-On Time | $T_{On}$ | $I_F$=5mA, $V_L$=20V | ms | | 0.3 | 2.5 |
| | Turn-Off Time | $T_{Off}$ | | ms | | 0.04 | 1.0 |
| **COUPLED** | | | | | | | |
| | Output Capacitance | $C_{Out}$ | f=1MHz | pF | | 115 | |

## CTA17/CSA17 DETECTOR ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)

| | Parameters | Symbol | Test Conditions | Units | Min | Typ | Max |
|---|---|---|---|---|---|---|---|
| **Input Pin (5,6)** | LED Forward Voltage | $V_F$ | $I_F$=+/-10mA | V | 0.9 | 1.2 | 1.5 |
| **Output Pin (3,4)** | C-E Breakdown Voltage | $V_{ceo}$ | $I_c$=0.1mA | V | 35 | | |
| | E-C Breakdown Voltage | $V_{ceo}$ | $I_e$=0.1mA | V | 5 | | |
| | Collector Dark Current | $I_{ceo}$ | $V_{ce}$=5V, $I_F$=0mA | nA | | | 500 |
| | Collector Saturation Voltage | $V_{ce(sat)}$ | $I_F$=±16mA, $I_c$=2mA | V | | | 0.5 |
| | Current Transfer Ratio | CTR | $I_F$=±6mA, $V_{ce}$=0.5V | % | 33 | | |

**Environmental Ratings:**

*Operating Temp: -40°C to +85°C; Storage Temp: -40°C to +120°C.*
*All electrical parameters measured at 25°C unless otherwise specified.*

# Mouser Electronics

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