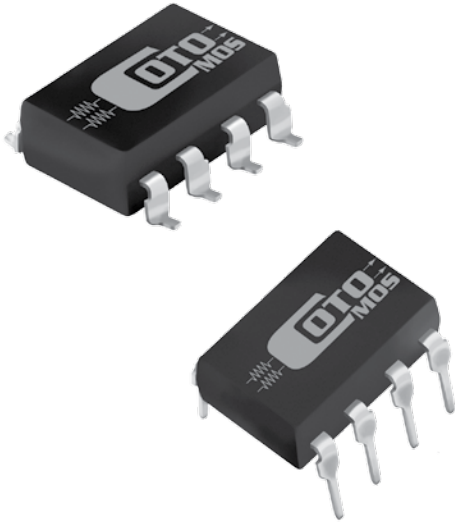


## CotoMOS® CTA17/CSA17

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](http://www.cotorelay.com).

### CTA17/CSA17 Features

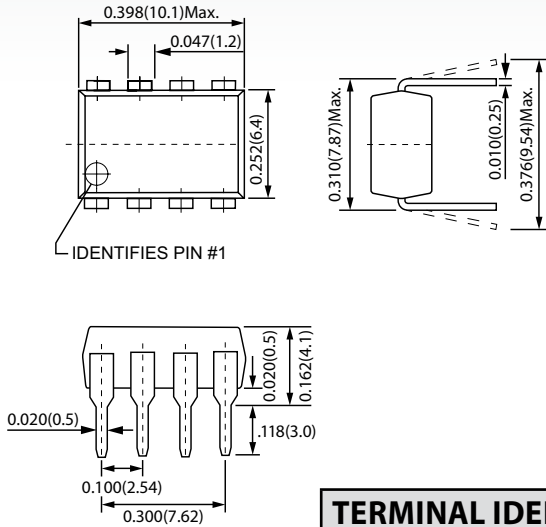
- ▶ Contact Form: 1A
- ▶ Load Voltage: 350V Minimum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: 120mA Maximum
- ▶ On-Resistance: 30Ω Maximum
- ▶ Low Off-State Leakage Current: 1μA Maximum
- ▶ I/O Breakdown Voltage: 3750Vrms Minimum



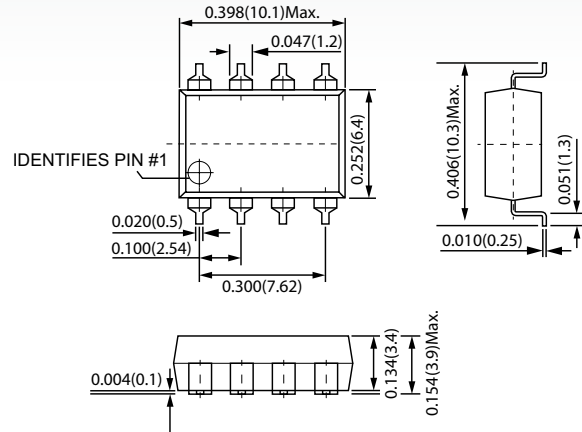
## DIMENSIONS

*in Millimeters*

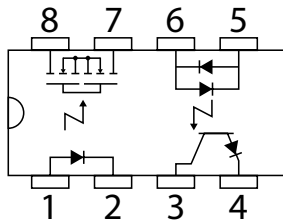
### CTA17



### 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

<b>CTA17/CSA17 MAXIMUM RATINGS (Ambient Temperature: 25°C)</b>			
Parameters	Symbol	Units	Value
<b>INPUT SPECIFICATIONS</b>			
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
<b>OUTPUT SPECIFICATIONS</b>			
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
<b>RELAY SPECIFICATIONS</b>			
Total Power Dissipation	$P_T$	mW	600mW
I/O Breakdown Voltage	$V_{I/O}$	V	3750Vrms

<b>CTA17/CSA17 RELAY ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)</b>							
	Parameters	Symbol	Test Conditions	Units	Min	Typ	Max
<b>Input Pin (1,2)</b>	LED Forward Voltage	$V_F$	$I_F=10mA$	V	0.9	1.2	1.4
	Reverse Current	$I_R$	$V_R=5V$	$\mu A$			10
	Operation LED Current	$I_{F On}$		mA		0.7	3.0
	Recovery LED Voltage	$V_{F Off}$		V	0.5	1.1	
<b>Output Pin (7,8)</b>	Load Voltage (Peak)	$V_L$		V	350		
	Load Current (Continuous)	$I_L$		mA			120
	Peak Load Current	$I_{Peak}$		mA			350
	On-Resistance	$R_{On}$		$\Omega$		19	30
	Off-State Leakage Current	$I_{Leak}$	$V_L=350V$		$\mu A$		
<b>TRANSMISSION</b>							
	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
<b>COUPLED</b>							
	Output Capacitance	$C_{Out}$	$f=1MHz$	pF		115	

<b>CTA17/CSA17 DETECTOR ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)</b>							
	Parameters	Symbol	Test Conditions	Units	Min	Typ	Max
<b>Input Pin (5,6)</b>	LED Forward Voltage	$V_F$	$I_F=\pm 10mA$	V	0.9	1.2	1.5
<b>Output Pin (3,4)</b>	C-E Breakdown Voltage	$V_{ce0}$	$I_c=0.1mA$	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	$V_{ce(sat)}$	$I_F=\pm 16mA, I_c=2mA$	V			0.5
	Current Transfer Ratio	CTR	$I_F=\pm 6mA, V_{ce}=0.5V$	%	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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