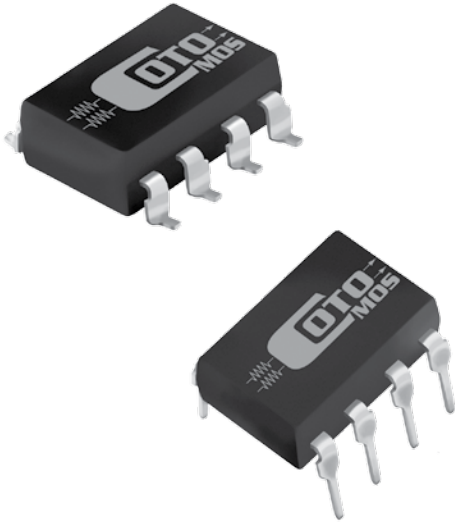


CotoMOS® CTA17/CSA17

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

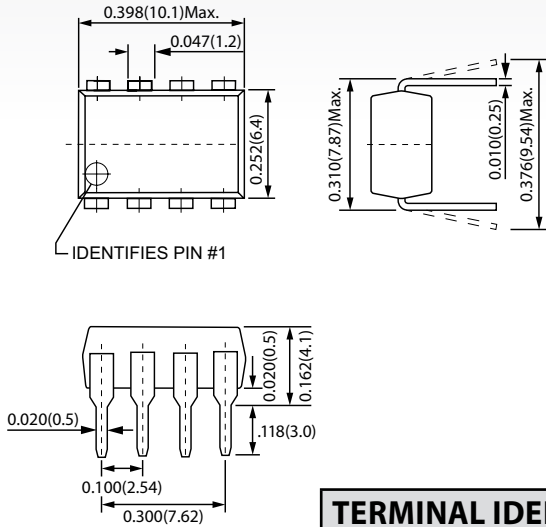
- ▶ Contact Form: 1A
- ▶ Load Voltage: 350V Minimum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: 120mA Maximum
- ▶ On-Resistance: 30Ω Maximum
- ▶ Low Off-State Leakage Current: 1μA Maximum
- ▶ I/O Breakdown Voltage: 3750Vrms Minimum



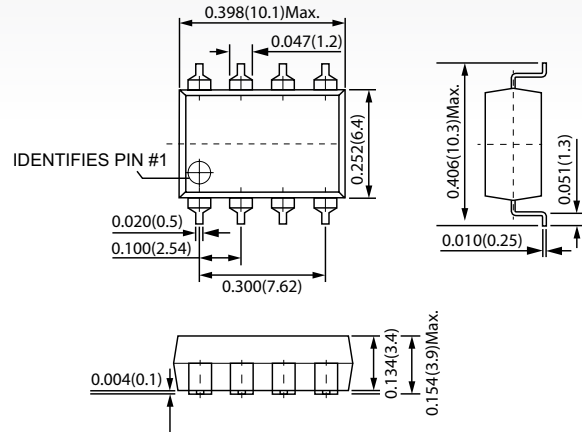
DIMENSIONS

in Millimeters

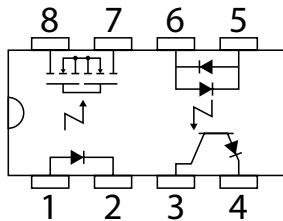
CTA17



CSA17



TERMINAL IDENTIFICATION



1: +LED - MOS Relay
 2: -LED - MOS Relay
 3: Collector - Phototransistor +/-
 4: Emitter - Phototransistor +/-

5: LED - Phototransistor +/-
 6: LED - Phototransistor +/-
 7: Load - MOS Relay Output
 8: Load - MOS Relay Output

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	$V_R=5V$	μA			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		
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	$I_F=\pm 10mA$	V	0.9	1.2	1.5
Output Pin (3,4)	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.