

**CotoMOS® CT148/CS148**

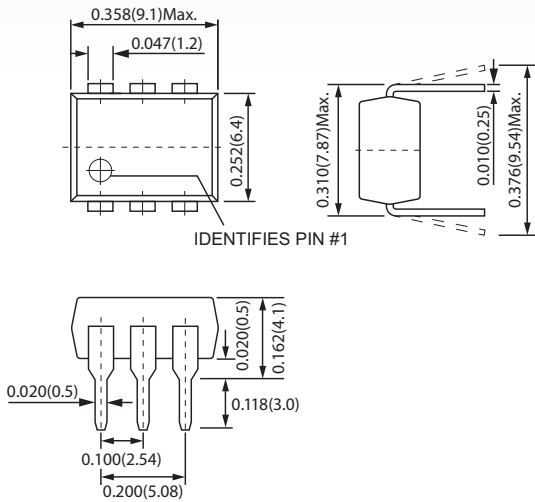
The CT148/CS148 features current switching capability to 350mA with a low on-resistance of 3.5Ω Maximum. Designed for Security, Industrial Controls, Measurement and Instrumentation applications the CotoMOS® relay is capable of handling 100V load conditions. If your requirements are different please contact your Coto Applications Engineer for assistance through [www.cotorelay.com](http://www.cotorelay.com).

**CT148/CS148 Features**

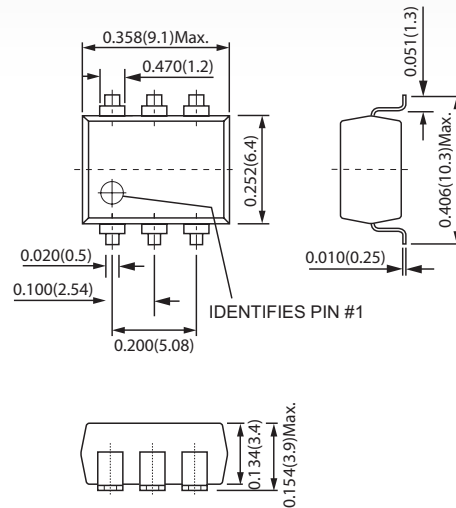
- ▶ Contact Form: 1A
- ▶ Load Voltage: 100V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: 350mA Maximum
- ▶ On-Resistance: 3.5Ω Maximum
- ▶ Output Capacitance: 37pF Typical
- ▶ Low Off-State Leakage Current: 1.0μ A Maximum
- ▶ Suffix - H for DIP/SMD I/O Breakdown Voltage: 5000Vrms Minimum

**DIMENSIONS**  
*in Inches (Millimeters)*

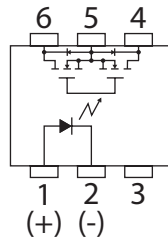
CT148



CS148



**TERMINAL IDENTIFICATION**



1: Anode (LED)	4,6: Drain (MOSFET)
2: Cathode (LED)	5: Source (MOSFET)
3: NC	

CT148/CS148 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)	100
Load Current	I <sub>L</sub>	mA	350
Peak Load Current	I <sub>Peak</sub>	A	1400
Output Power Dissipation	P <sub>Out</sub>	mW	200
<b>RELAY SPECIFICATIONS</b>			
Total Power Dissipation	P <sub>T</sub>	mW	225
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

CT148/CS148 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	1.17	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	1.0	
<b>OUTPUT</b>						
On-Resistance Drain to Drain	R <sub>On</sub>	I <sub>F</sub> =5mA, I <sub>L</sub> =Rating Time to flow is within 1 sec.	Ω		2.0	3.5
Off-State Leakage Current	I <sub>Leak</sub>	V <sub>L</sub> =100V	μA			1.0
Output Capacitance	C <sub>Out</sub>	V <sub>L</sub> =100V, f=1MHz	pF		37	
<b>TRANSMISSION</b>						
Operate Time	T <sub>On</sub>	I <sub>F</sub> =10mA, I <sub>L</sub> =Rating	ms		0.2	1.0
Recovery Time	T <sub>Off</sub>	I <sub>F</sub> =10mA, I <sub>L</sub> =Rating	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.

# 48 SERIES GRAPHS

