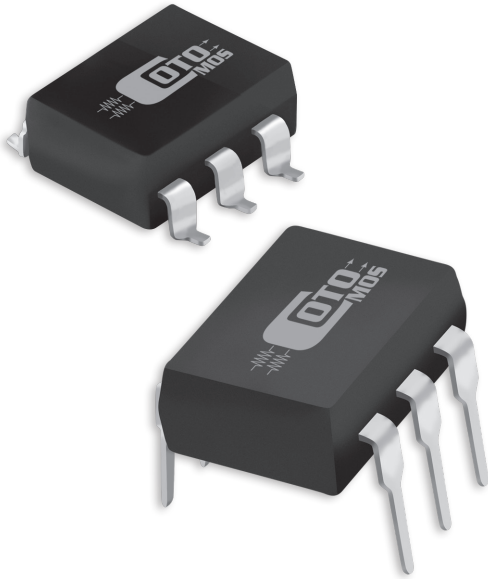


CotoMOS® CT140/CS140

The CT140 and CS140 combine Coto quality and economy in an industry standard 6 pin DIP package. Both the CT140 and the CS140 offer high voltage switching and high load current. The CT140 utilizes a thru hole lead configuration, while the CS140 offers a surface mount option when the application requires it. Both relays are ideally suited to the needs of Test and Measurement, Solar, and Battery Management.

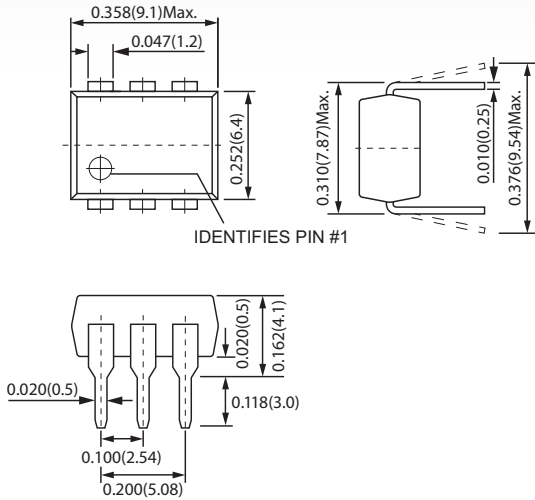
CT140/CS140 Features

- ▶ Contact Form: 1A
- ▶ Load Voltage: 1500V Maximum
- ▶ Operation LED Current: 5.0mA Maximum
- ▶ Load Current: 45mA Maximum
- ▶ On-Resistance: 180Ω Typical
- ▶ Low Off-State Leakage Current: 10μA Maximum
- ▶ I/O Breakdown Voltage: 3750Vrms Minimum
- ▶ Suffix - H for I/O Breakdown Voltage: 5000Vrms Minimum

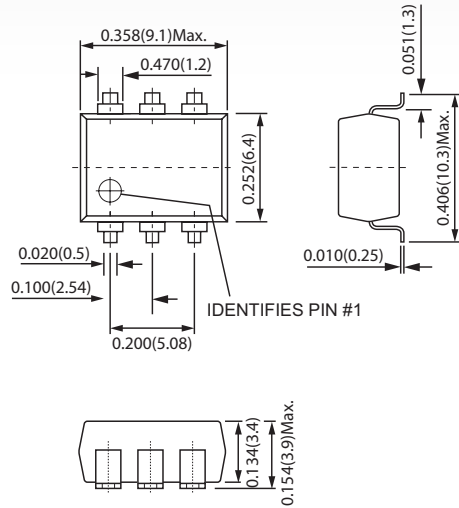


DIMENSIONS
in Inches (Millimeters)

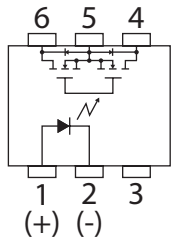
CT140



CS140

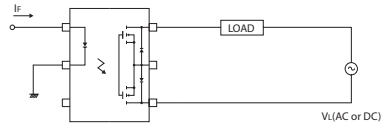


TERMINAL IDENTIFICATION

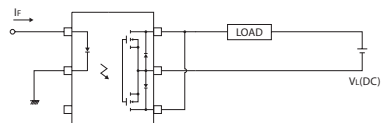


- 1: Anode (LED)
- 2: Cathode (LED)
- 3: NC
- 4,6: Drain (MOS FET)
- 5: Source (MOS FET)

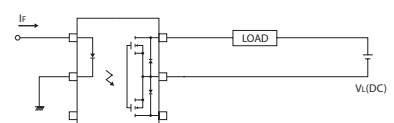
CONNECTIONS



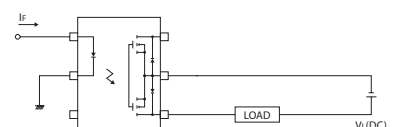
A Control bi-directional signal



C On-Resistance is 1/2 of B-connection



B On-Resistance is 1/2 of A-connection



CT140/CS140 MAXIMUM RATINGS (Ambient Temperature: 25°C)				
Parameters	Symbol	Units	Value	
INPUT SPECIFICATIONS				
Continuous LED Current	I _F	mA	50	
Peak LED Current	I _{FP}	mA	500	
LED Reverse Voltage	V _R	V	5	
Input Power Dissipation	P _{in}	mW	75	
OUTPUT SPECIFICATIONS				
Load Voltage	V _L	V (AC peak or DC)	1500	
Load Current <i>(See connections on previous page)</i>	I _L	mA	A	45mA (AC or DC)
			B	50mA (DC)
			C	70mA (DC)
Peak Load Current	I _{Peak}	mA	200	
Output Power Dissipation	P _{Out}	mW	450	
RELAY SPECIFICATIONS				
Total Power Dissipation	P _T	mW	500	
I/O Breakdown Voltage	V _{I/O}	V _{rms}	3750	
Operating Temperature	T _{opr}	°C	-40 ~ +85	
Storage Temperature	T _{stg}	°C	-40 ~ +100	

CT140/CS140 ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)						
Parameters	Symbol	Test Conditions	Units	Min	Typ	Max
INPUT						
LED Forward Voltage	V _F	I _F =10mA	V	1.0	1.17	1.5
Operation LED Current	I _{F On}		mA		0.9	5.0
Recovery LED Voltage	V _{F Off}		V	0.5	1.0	
OUTPUT						
On-Resistance Drain to Drain	R _{On}	I _F =10mA, I _L =Rating I _F =10mA, I _L <5mA	Ω		110 180	200 300
Off-State Leakage Current	I _{Leak}	I _F =0mA, V _L =1500V	μA			10
Output Capacitance	C _{Out}	V _L =0V, f=1MHz	pF		83	
TRANSMISSION						
Turn-On Time	T _{On}	I _F =10mA, I _L =Rating	ms		0.3	1.0
Turn-Off Time	T _{Off}		ms		0.04	0.5
COUPLED						
I/O Insulation Resistance	R _{I/O}		Ω	10 ¹⁰		
I/O Capacitance	C _{I/O}	f=1MHz	pF		1.3	

Environmental Ratings:

Operating Temp: -40°C to +85°C; Storage Temp: -40 to +100°C.

40 SERIES GRAPHS

