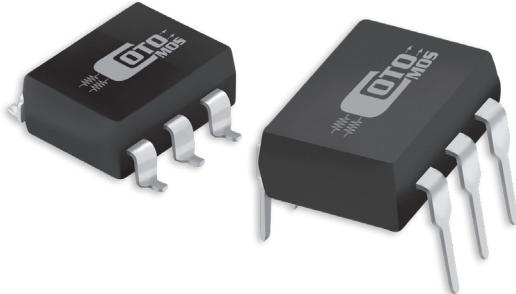


## Description

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.

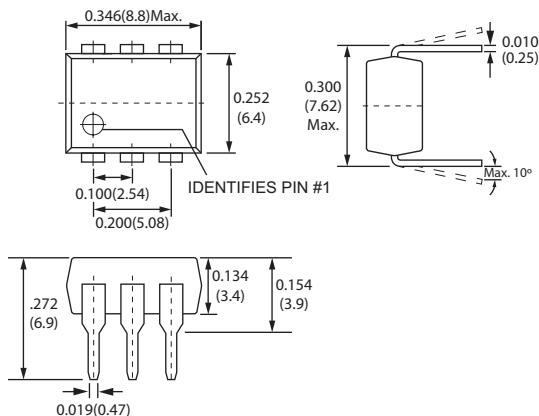
## Device Package



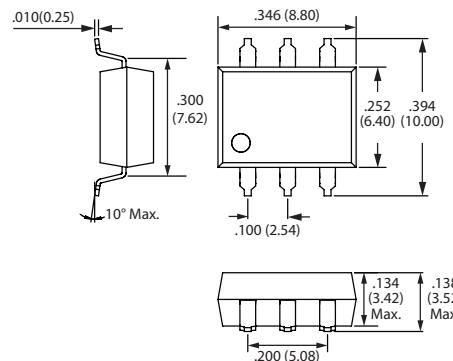
## DIMENSIONS

*in Inches (Millimeters)*

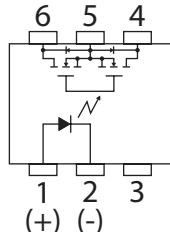
CT140



CS140



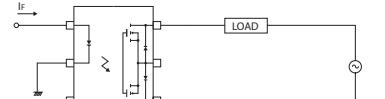
## Terminal Identification



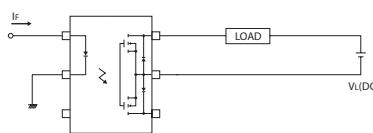
1: Anode (LED)  
2: Cathode (LED)  
3: NC

4,6: Drain (MOS FET)  
5: Source (MOS FET)

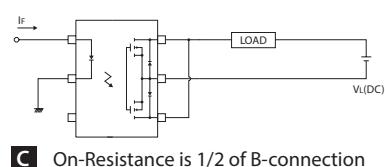
## CONNECTIONS



A Control bi-directional signal



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



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

## Specifications

### Absolute Maximum Ratings

Parameters	Symbol	Rating		Unit
Input	Continuous LED Current	I <sub>F</sub>	50	mA
	Peak LED Current (f=100 Hz, duty=1%)	I <sub>FP</sub>	1000	mA
	LED Reverse Voltage	V <sub>R</sub>	5	V
	Input Power Dissipation	P <sub>In</sub>	75	mW
Output	Load Voltage	V <sub>L</sub>	1500	V (AC peak or DC)
	Load Current	I <sub>L</sub>	A   45mA (AC)	mA
			B   50mA (DC)	
			C   75mA (DC)	
	Peak Load Current	I <sub>peak</sub>	180	mA
	Output Power Dissipation	P <sub>out</sub>	450	mW
	Total Power Dissipation	P <sub>T</sub>	500	mW
	I/O Breakdown Voltage (RH=60%, 1 min)	V <sub>I/O</sub>	3750	Vrms
I/O Breakdown Voltage (suffix-V) (RH=60%, 1 min)		V <sub>I/O</sub>	5000	Vrms
Operating Temperature		T <sub>opr</sub>	-40 to +85	°C
Storage Temperature		T <sub>stg</sub>	-40 to +100	°C
Pin Soldering Temperature (10 sec. max)		T <sub>sol</sub>	260	°C

### Electro-Optical Characteristics

Parameters	Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	V <sub>F</sub>	I <sub>F</sub> =10mA		1.2	1.5	V
	I <sub>F ON</sub>		0.7	0.8	5.0	mA
	V <sub>F OFF</sub>			0.35	0.5	V
Output	R <sub>on</sub>	I <sub>F</sub> =10mA, I <sub>L</sub> =Rating I <sub>F</sub> =10mA, I <sub>L</sub> <5mA		130 220	200 300	Ω
	I <sub>LEAK</sub>	I <sub>F</sub> =0mA, V <sub>L</sub> =1500V			10	μA
	C <sub>out</sub>	V <sub>L</sub> =0V, f=1MHz		58		pF
Trans-mission	T <sub>ON</sub>			0.3	1.0	ms
	T <sub>OFF</sub>	I <sub>F</sub> =10mA, I <sub>L</sub> =Rating		0.3	0.2	ms
Coupled	R <sub>I/O</sub>		10 <sup>10</sup>			Ω
	C <sub>I/O</sub>	f=1MHz		0.8	1.5	pF

### Environmental Ratings:

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