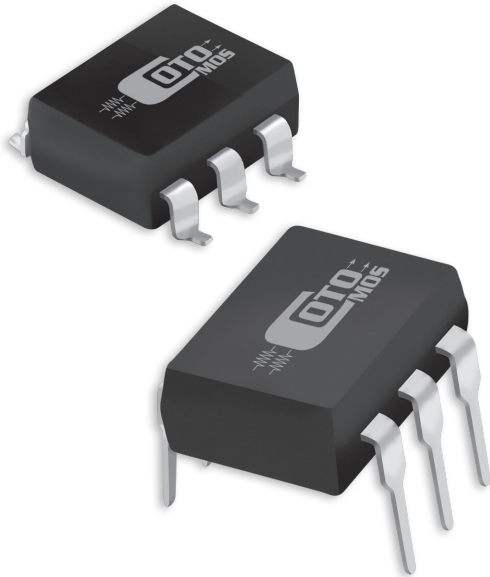


## CotoMOS® CT124/CS124

The CT124 and CS124 feature high current switching capability to 3.5A with a low on resistance of 0.07Ω Maximum. Designed for ATE, Controls, or Measurement and Instrumentation applications the CotoMOS® relay is capable of handling 40V load conditions. If your requirements are different please contact your Coto Applications Engineer for assistance through [www.cotorelay.com](http://www.cotorelay.com) or email us at [cotomos@cotorelay.com](mailto:cotomos@cotorelay.com).

### CT124/CS124 Features

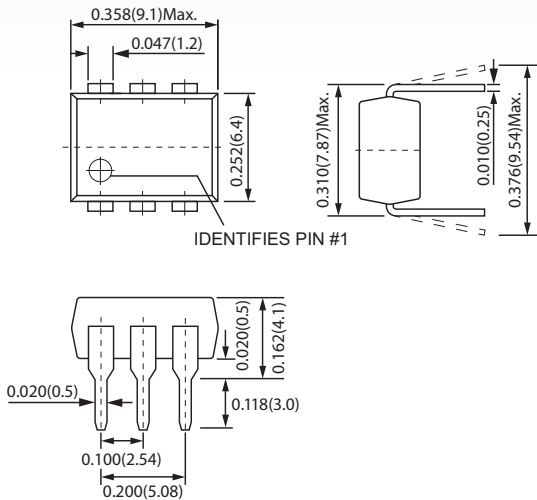
- ▶ Contact Form: 1A
- ▶ Load Voltage: 40V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: 3.5A Maximum
- ▶ On-Resistance: 0.07Ω Maximum
- ▶ Low Off-State Leakage Current: 10μA Maximum
- ▶ I/O Breakdown Voltage: 1500Vrms Minimum
- ▶ Suffix - H for I/O Breakdown Voltage: 5000Vrms Minimum



## DIMENSIONS

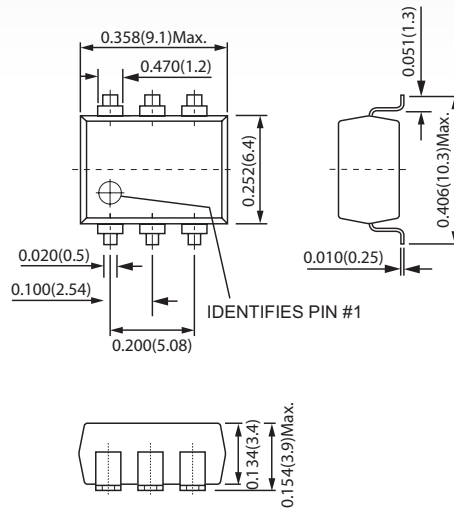
*in Inches (Millimeters)*

CT124



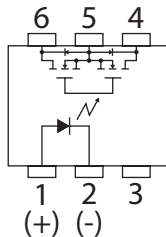
IDENTIFIES PIN #1

CS124



IDENTIFIES PIN #1

### TERMINAL IDENTIFICATION



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

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

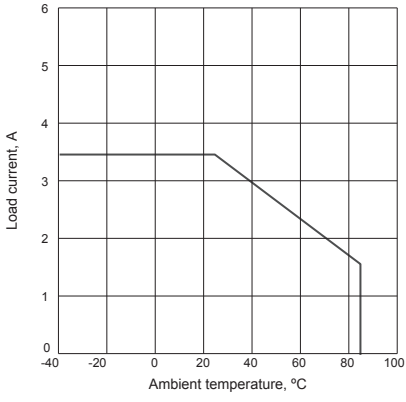
CT124/CS124 MAXIMUM RATINGS (Ambient Temperature: 25°C)			
Parameters	Symbol	Units	Value
<b>INPUT SPECIFICATIONS</b>			
Continuous LED Current	I <sub>F</sub>	mA	50
Peak LED Current	I <sub>FP</sub>	mA	500
LED Reverse Voltage	V <sub>R</sub>	V	5
Input Power Dissipation	P <sub>in</sub>	mW	75
<b>OUTPUT SPECIFICATIONS</b>			
Load Voltage	V <sub>L</sub>	V (AC peak or DC)	40
Load Current	I <sub>L</sub>	A	3.5
Peak Load Current	I <sub>Peak</sub>	A	8.0
Output Power Dissipation	P <sub>Out</sub>	mW	500
<b>RELAY SPECIFICATIONS</b>			
Total Power Dissipation	P <sub>T</sub>	mW	550
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

CT124/CS124 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	1.37	1.5
Operation LED Current	I <sub>F On</sub>		mA		1.5	3.0
Recovery LED Voltage	V <sub>F Off</sub>		V	0.5	1.2	
<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		0.045	0.07
Off-State Leakage Current	I <sub>Leak</sub>	I <sub>F</sub> =0mA, V <sub>L</sub> =40V	μA			1.0
Output Capacitance	C <sub>Out</sub>	V <sub>L</sub> =0V, f=1MHz	pF		810	
<b>TRANSMISSION</b>						
Turn-On Time	T <sub>On</sub>	I <sub>F</sub> =10mA, I <sub>L</sub> =Rating	ms		1.8	5.0
Turn-Off Time	T <sub>Off</sub>		ms		0.03	2.0
<b>COUPLED</b>						
I/O Insulation Resistance	R <sub>I/O</sub>		Ω	5*10 <sup>9</sup>		
I/O Capacitance	C <sub>I/O</sub>	f=1MHz	pF		1.0	

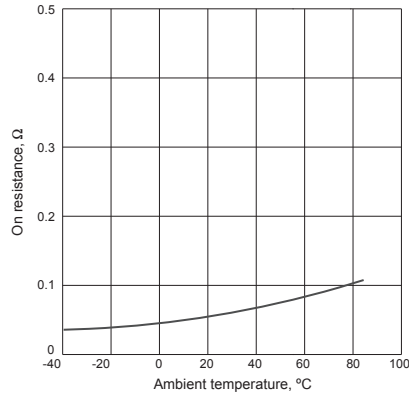
**Environmental Ratings:**

Operating Temp: -40°C to +85°C; Storage Temp: -40 to +100 C.  
All electrical parameters measured at 25° C unless otherwise specified.

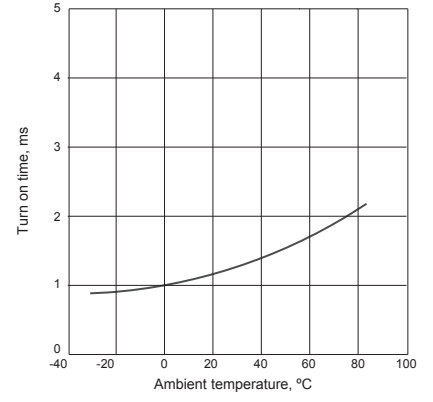
Load current Vs. Ambient temperature



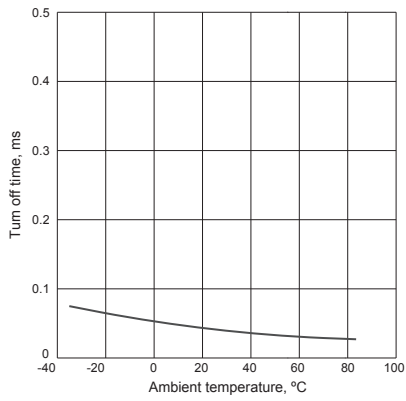
On resistance Vs. Ambient temperature



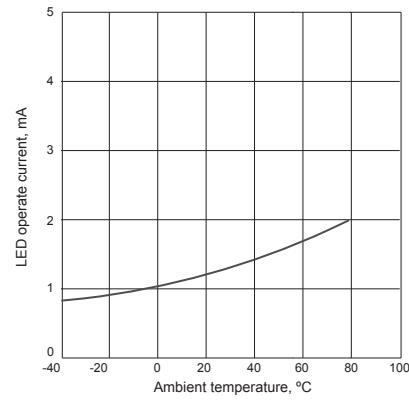
Turn on time Vs. Ambient temperature



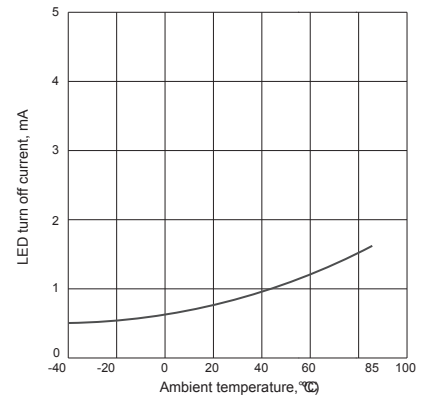
Turn off time Vs. Ambient temperature



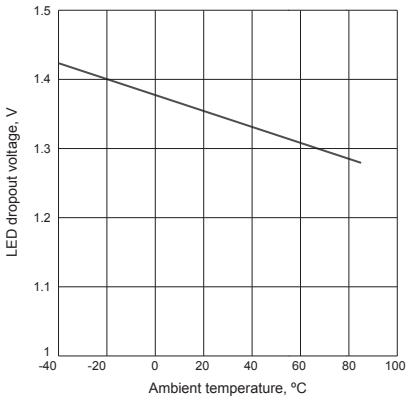
LED operate current Vs. Ambient temperature



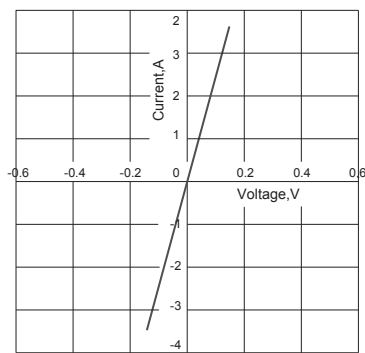
LED Turn off current Vs. Ambient temperature



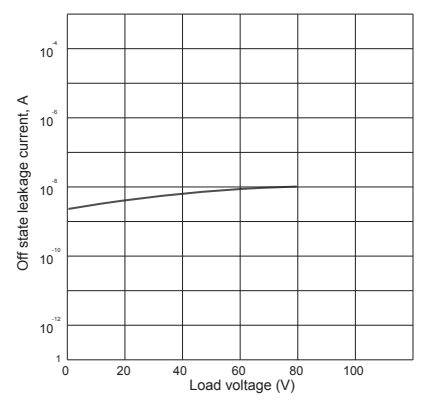
LED forward voltage Vs. Ambient temperature



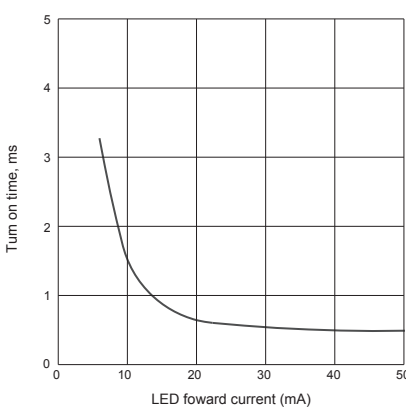
Voltage Vs. current characteristics of output at MOS portion



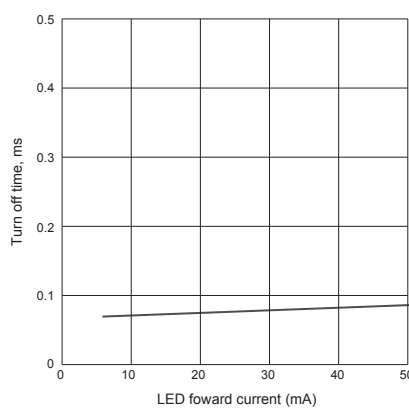
Off state leakage current Vs. Load voltage characteristics



LED forward current Vs. turn on time characteristics



LED forward current Vs. turn off time characteristics



Applied voltage Vs. output capacitance characteristics

