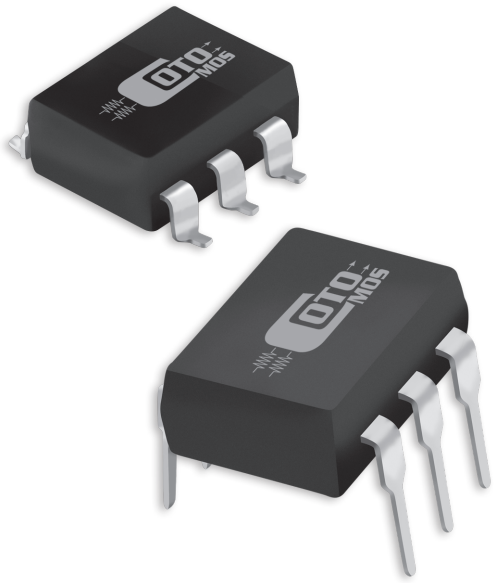


CotoMOS® CT124/CS124

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 or email us at cotomos@cotorelay.com.

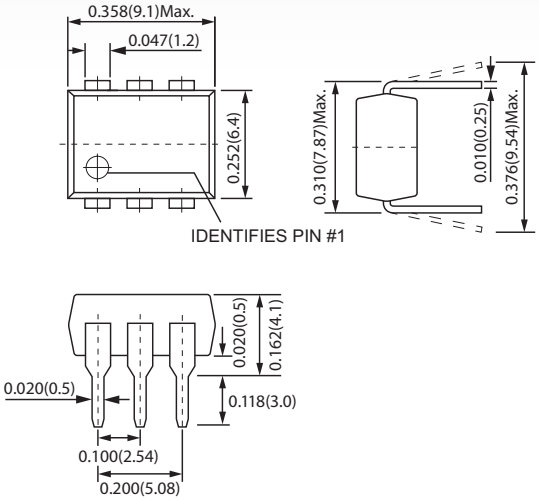
CT124/CS124 Features

- 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

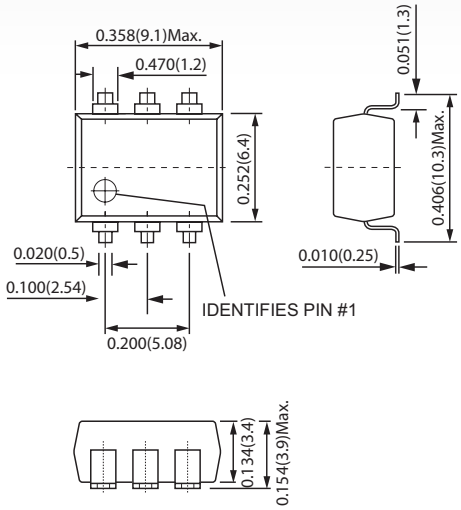
DIMENSIONS

in Inches (Millimeters)

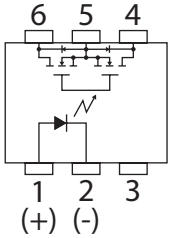
CT124



CS124



TERMINAL IDENTIFICATION



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

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CT124/CS124 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)	40
Load Current	I_L	A	3.5
Peak Load Current	I_{Peak}	A	8.0
Output Power Dissipation	P_{Out}	mW	500
RELAY SPECIFICATIONS			
Total Power Dissipation	P_T	mW	550
I/O Breakdown Voltage	$V_{I/O}$	Vrms	1500
Operating Temperature	T_{Opr}	°C	-40 ~ +85
Storage Temperature	T_{Stg}	°C	-40 ~ +100

CT124/CS124 ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)

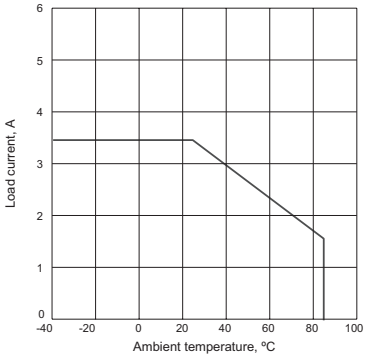
Parameters	Symbol	Test Conditions	Units	Min	Typ	Max
INPUT						
LED Forward Voltage	V_F	I=10mA	V	1.0	1.37	1.5
Operation LED Current	$I_{F\ On}$		mA		1.5	3.0
Recovery LED Voltage	$V_{F\ Off}$		V	0.5	1.2	
OUTPUT						
On-Resistance Drain to Drain	R_{On}	I_F=10mA, I_L=Rating Time to flow is within 1 sec.	Ω		0.045	0.07
Off-State Leakage Current	I_{Leak}	I_F=0mA, V_L=40V	μA			1.0
Output Capacitance	C_{Out}	V_L=0V, f=1MHz	pF		810	
TRANSMISSION						
Turn-On Time	T_{On}	I_F=10mA, I_L=Rating	ms		1.8	5.0
Turn-Off Time	T_{Off}		ms		0.03	2.0
COUPLED						
I/O Insulation Resistance	$R_{I/O}$		Ω	$5*10^9$		
I/O Capacitance	$C_{I/O}$	f=1MHz	pF		1.0	

Environmental Ratings:

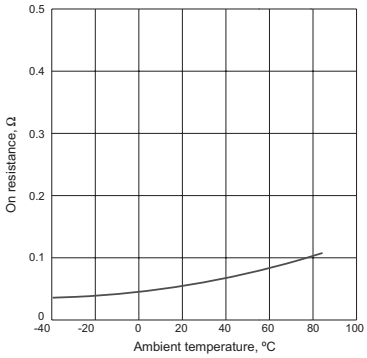
Operating Temp: -40°C to +85° C; Storage Temp: –40 to +100 C.
All electrical parameters measured at 25° C unless otherwise specified.

CT124/CS124 GRAPHS

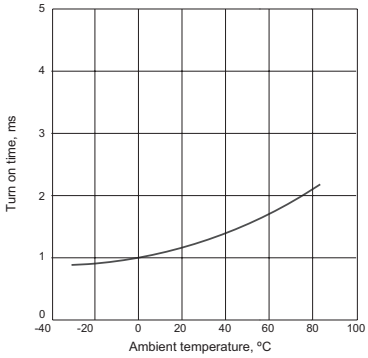
Load current Vs.
Ambient temperature



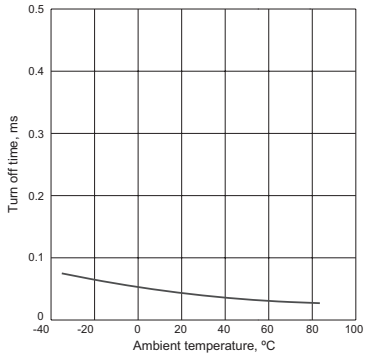
On resistance Vs.
Ambient temperature



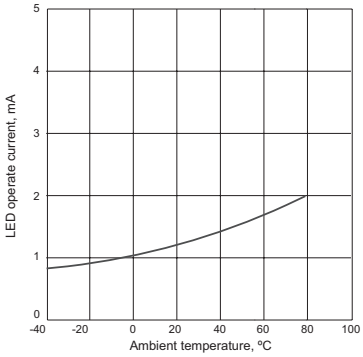
Turn on time Vs.
Ambient temperature



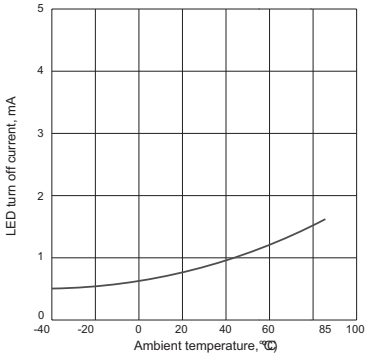
Turn off time Vs.
Ambient temperature



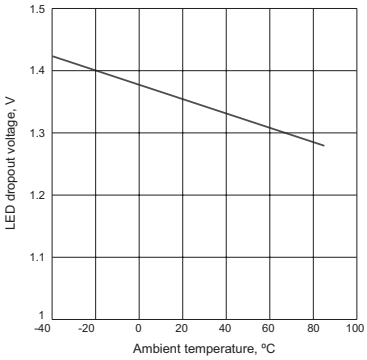
LED operate current Vs.
Ambient temperature



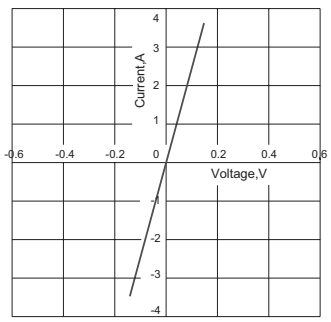
LED Turn off current Vs.
Ambient temperature



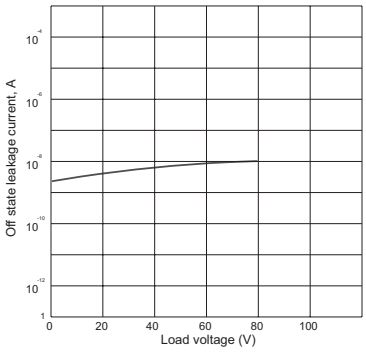
LED forward voltage Vs.
Ambient temperature



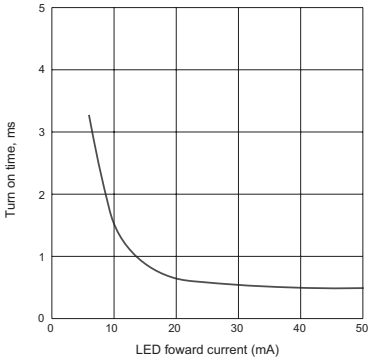
Voltage Vs. current characteristics
of output at MOS portion



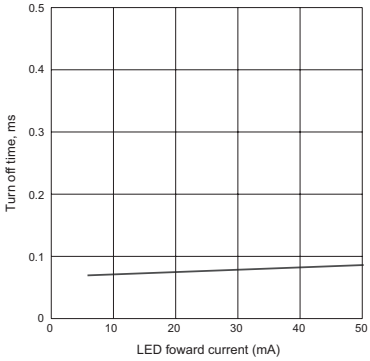
Off state leakage current Vs.
Load voltage characteristics



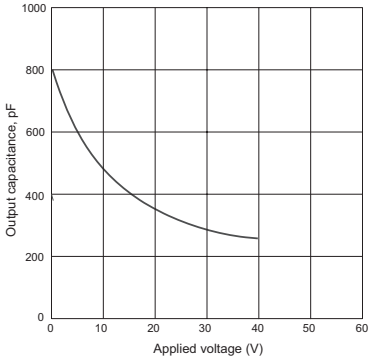
LED foward current Vs.
turn on time characteristics



LED foward current Vs.
turn off time characteristics



Applied voltage Vs.
output capacitance characteristics



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