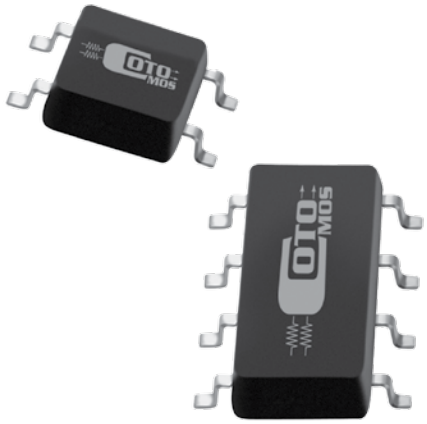


CotoMOS® C247S/C347S

The C247S and C347S feature high current switching capability to 1.25A with a low on resistance of 0.5Ω Maximum. Designed for Security, Measurement and Instrumentation applications the CotoMOS® relay is capable of handling 80V load conditions. If your requirements are different please contact your Coto Applications Engineer for assistance through www.cotorelay.com.

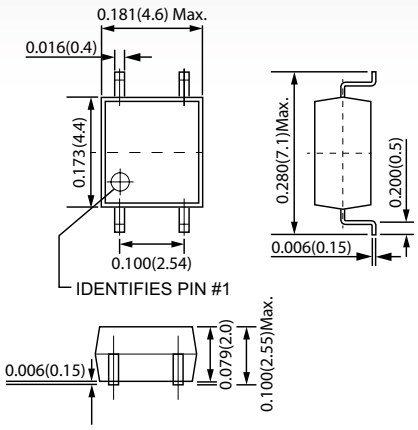
C247S/C347S Features

- Contact Form: C247S: 1A / C347S: 2A
- Load Voltage: 80V Maximum
- Operation LED Current: 3.0mA Maximum
- Load Current: C247S: 1.25A Maximum / C347S: 1.0A Maximum
- On-Resistance: 0.15Ω Typical
- Output Capacitance: 190pF Typical
- Low Off-State Leakage Current: 1.0µA Maximum

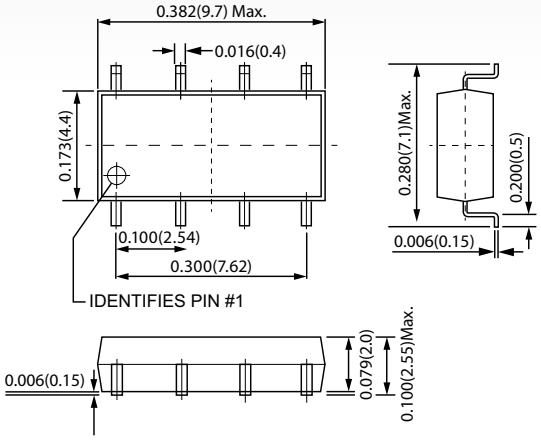
DIMENSIONS

in Inches (Millimeters)

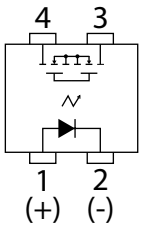
C247S



C347S

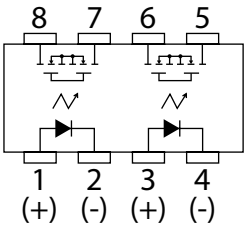


TERMINAL IDENTIFICATION



1: Anode (LED) 2: Cathode (LED)	3,4: Drain (MOSFET)

TERMINAL IDENTIFICATION



1,3: Anode (LED) 2,4: Cathode (LED)	5,6,7,8: Drain (MOSFET)

C247S/C347S 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)	80
Load Current	I_L	A	1.25 (1Ch) / 1.0 (2Ch)
Peak Load Current	I_{Peak}	A	3.0
Output Power Dissipation	P_{Out}	mW	350 (1Ch) / 450 (2Ch)
RELAY SPECIFICATIONS			
Total Power Dissipation	P_T	mW	400 (1Ch) / 500 (2Ch)
I/O Breakdown Voltage	$V_{I/O}$	Vrms	1500
Operating Temperature	T_{Opr}	°C	-40 ~ +85
Storage Temperature	T_{Stg}	°C	-40 ~ +100

C247S/C347S ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)

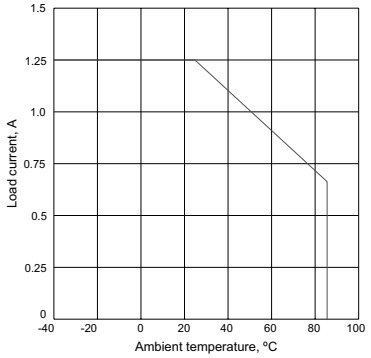
Parameters	Symbol	Test Conditions	Units	Min	Typ	Max
INPUT						
LED Forward Voltage	V_F	I_F=10mA	V	1.0	1.37	1.5
Operation LED Current	$I_{F\ On}$		mA		1.2	3.0
Recovery LED Voltage	$V_{F\ Off}$		V	0.5		
OUTPUT						
On-Resistance Drain to Drain	R_{On}	I_F=5mA, I_L=Rating Time to flow is within 1 sec.	Ω		0.15	0.5
Off-State Leakage Current	I_{Leak}	V_L=80V	µA			1.0
Output Capacitance	C_{Out}	V_L=0V, f=1MHz	pF		190	
TRANSMISSION						
Turn-On Time	T_{On}	I_F=5mA, I_L=Rating	ms		0.6	5.0
Turn-Off Time	T_{Off}		ms		0.06	0.5
COUPLED						
I/O Insulation Resistance	$R_{I/O}$		Ω	10^9		
I/O Capacitance	$C_{I/O}$	f=1MHz	pF		1.3	

Environmental Ratings:

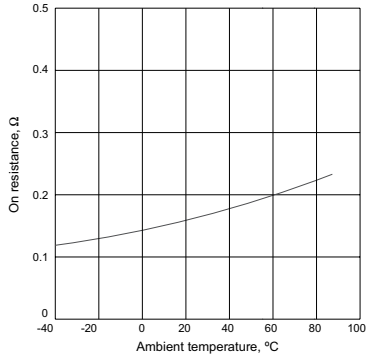
Operating Temp: -40°C to +85° C; Storage Temp: –40 to +100 C.
All electrical parameters measured at 25° C unless otherwise specified.

C247S/C347S GRAPHS

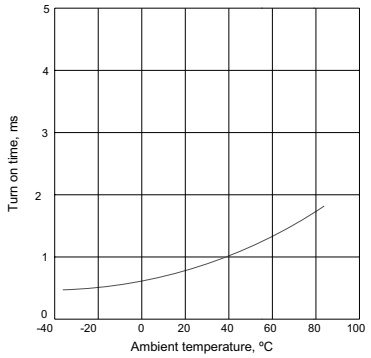
Load current Vs.
Ambient temperature



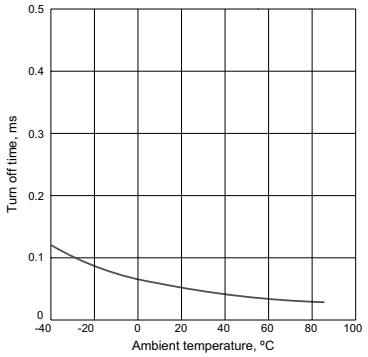
On resistance Vs.
Ambient temperature



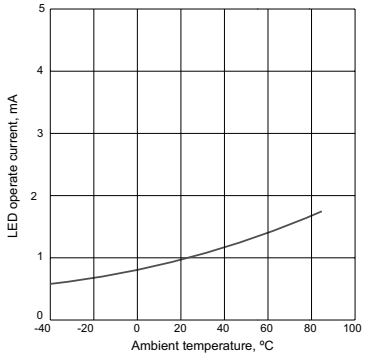
Turn on time Vs.
Ambient temperature



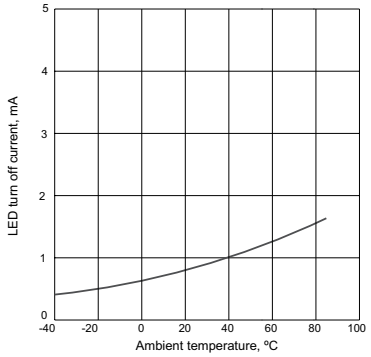
Turn off time Vs.
Ambient temperature



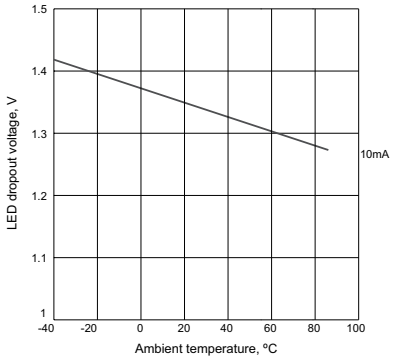
LED operate current Vs.
Ambient temperature



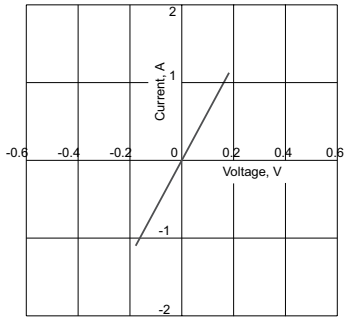
LED Turn off current Vs.
Ambient temperature



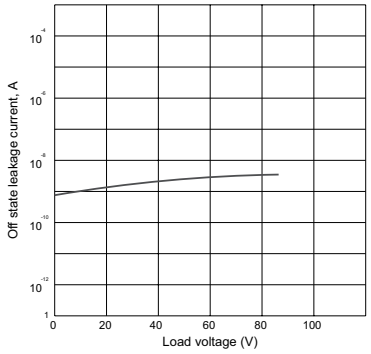
LED forward voltage Vs.
Ambient temperature



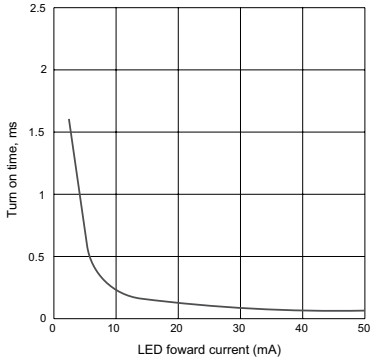
Voltage Vs. current characteristics
of output at MOS portion



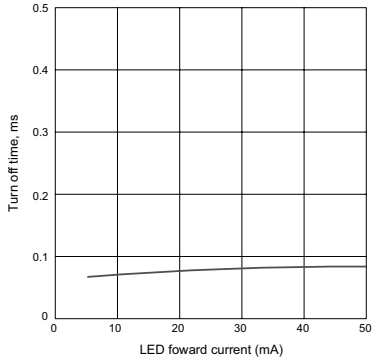
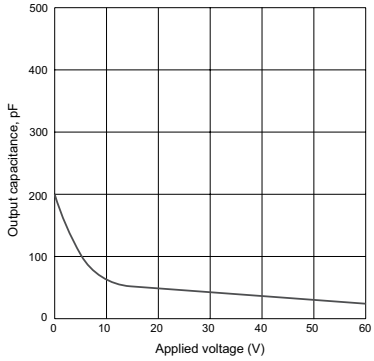
Off state leakage current Vs.
Load voltage characteristics



LED foward current Vs.
turn on time characteristics



LED foward current Vs.
turn off time characteristics



Applied voltage Vs.
output capacitance characteristics