

# Crydom

## LCA220

*See full Datasheet below...*

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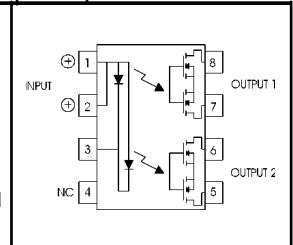
# Photomos / **2 FORM A** Solid State Relays

Model Number	LCA220				
Parameters	Sym.	Test Conditions	Units	2 Form A	
LED Forward Current - Turn on	$I_{Fon}$	$I_L = 100mA, t = 10ms$	mADC	Max Typ	10 3.4
LED Forward Current - Turn off	$I_{Foff}$	$I_L = 0.2mA, V_L = (Note 1)$	mADC	Min Typ	0.1 3.0
Recommended Forward Current	$I_F$		mADC	Min Max	15 40
LED Forward Voltage	$V_F$	$I_F = 20mA$	VDC	Min Max	1.1 1.4
<b>Maximum Input Ratings</b>					
LED Forward Current	$I_F$		mADC	Max	50
LED Reverse Voltage Withstand	$V_R$	$I_R = 10mA$	VDC	Max	10
<b>Output Characteristics</b>					
Switching Voltage	$V_L$	$I_L = 50mA$	V PEAK	Max	15
Switching Current	$I_L$	Each Channel Both Ch.'s Simultaneously	mA mA	Max Max	250 150
Current Limit	$I_{Lmt}$	$I_F = 5mA, t = 5ms$	mA	Min Max	n/a n/a
On Resistance	$R_{on}$	$I_F = 5mA/0mA, I_L = 50mA$	W	Max	8
Off State Resistance	$R_{off}$	$I_F = 0mA, V_L = 15V$	GW	Min Typ	0.5 5000
Off State Leakage	$I_{off}$	$I_F = 0mA, V_L = 15V$	nA	Max Typ	200 0.5
	$I_{off}$	$I_F = 0mA, V_L = Max$	mA	Max	1
Turn On Time	$T_{on}$	$I_F = 10mA, I_L = 50mA$	ms	Max	1.5
Turn Off Time	$T_{off}$	$I_F = 10mA, I_L = 50mA$	ms	Max	0.5
Capacitance Across Output		$I_F = 0mA, V_L = 1V$	pF	Typ	40
		$I_F = 0mA, V_L = 50V$	pF	Typ	-
Thermal Offset Voltage		$I_F = 10mA$	mV	Typ	0.2
<b>General Characteristics</b>					
Dielectric Strength - Input to Output		$t = 60sec$	VRMS	Min	3750
Capacitance - Input to Output			pF	Typ	1.2
Power Dissipation	$P_{Diss}$		mW	Max	600

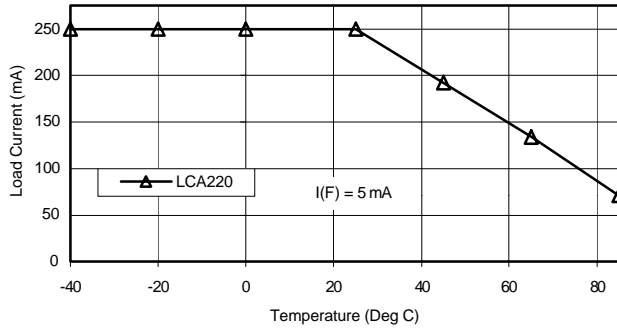
**Notes:**

- 1:  $V_L$  for LED Forward Current - Turn Off is 50 Volts less than "Switching Voltage Max".
- 2: Specifications subject to change without notice.

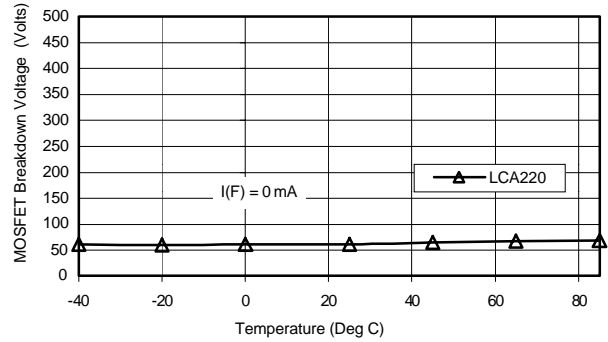
Schematic Top View:  
Mold mark on top of relay indicates Pin #1



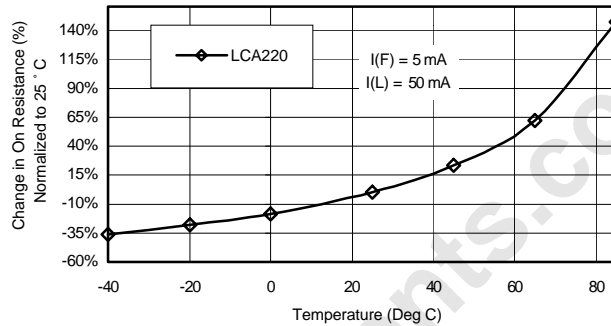
# Photomos / 2 FORM A



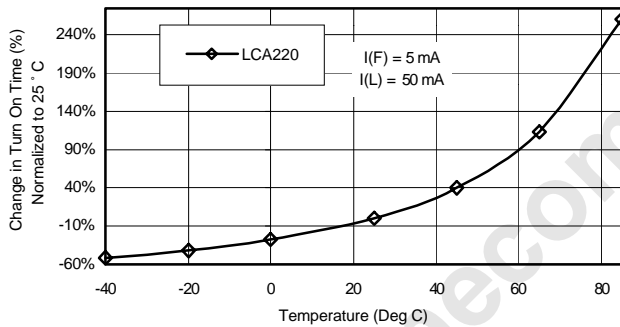
**A. Load Current vs. Ambient Temperature**



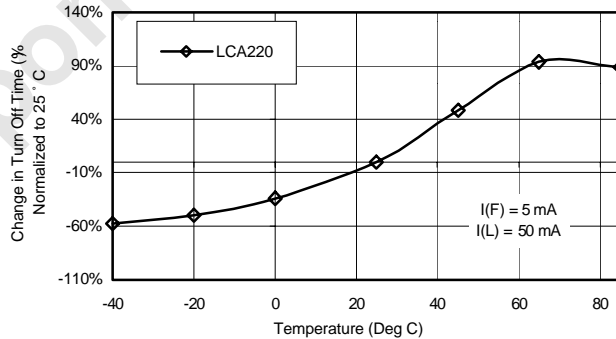
**B. Output MOSFET BV vs. Ambient Temperature**



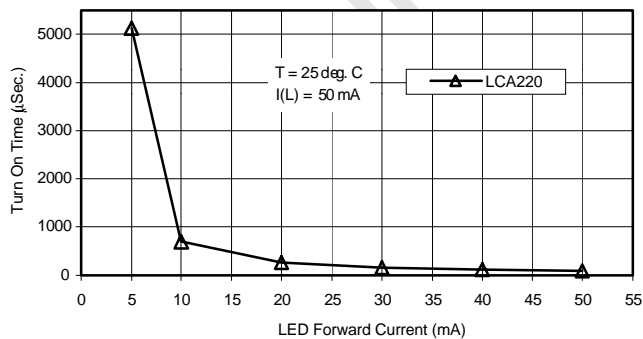
**C. On-Resistance vs. Ambient Temperature**



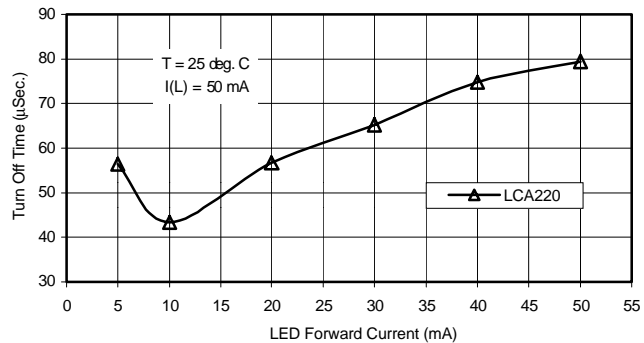
**D. On Time vs. Ambient Temperature**



**E. Turn Off Time vs. Ambient Temperature**



**F. Turn On Time vs. LED Forward Current**



**G. Turn Off Time vs. LED Forward Current**