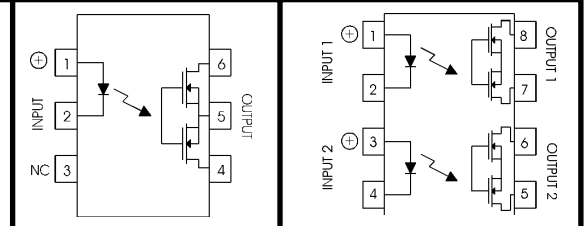


## Photomos / **FORM B** Solid State Relays

Model Number					LCB110	LCB126	LBB110	LBB126
Parameters	Sym.	Test Conditions	Units		1 Form B	1 Form B	Dual Form B	Dual Form B
<b>Input Characteristics</b>								
LED Forward Current - Turn on	$I_{Fon}$	$I_L = 100mA, t = 10ms$	mADC	Max Typ	5.0 3.0	5.0 3.0	5.0 3.0	5.0 3.0
LED Forward Current - Turn off	$I_{Foff}$	$I_L = 0.2mA, V_L = (Note 1)$	mADC	Min Typ	0.1 1.8	0.1 1.8	0.1 1.8	0.1 1.8
Recommended Forward Current	$I_F$		mADC	Min Max	10 30	10 30	10 30	10 30
LED Forward Voltage	$V_F$	$I_F = 20mA$	VDC	Min Max	1.1 1.4	1.1 1.4	1.1 1.4	1.1 1.4
<b>Maximum Input Ratings</b>								
LED Forward Current	$I_F$		mADC	Max	50	50	50	50
LED Reverse Voltage Withstand	$V_R$	$I_R = 10mA$	VDC	Max	10	10	10	10
<b>Output Characteristics</b>								
Switching Voltage	$V_L$	$I_L = 50mA$	V PEAK	Max	350	250	350	250
Switching Current	$I_L$	(Note 2) (Note 3)	mA	Max	165	200	170	200
				Max	330	400	120	140
On Resistance (Note 2)	$R_{on}$	$I_F = 0mA, I_L = 50mA$	$\Omega$	Max	20	13	20	13
On Resistance (Note 4)	$R_{on}$	$I_F = 0mA, I_L = 50mA$	$\Omega$	Max	5.0	3.25	n/a	n/a
Off State Resistance	$R_{off}$	$I_F = 5mA, V_L = 100V$	G $\Omega$	Min Typ	0.1 1.4	0.1 1.4	0.1 1.4	0.1 1.4
Off State Leakage	$I_{off}$	$I_F = 5mA, V_L = 100V$	$\mu A$	Max	0.07	0.07	0.07	0.07
				Typ	1.0	1.0	1.0	1.0
Turn On Time	$T_{on}$	$I_F = 5mA, V_L = Max$	$\mu A$	Max	1.0	1.0	1.0	1.0
				Typ	1.0	1.0	1.0	1.0
Turn Off Time	$T_{off}$	$I_F = 5mA, V_L = Max$	$\mu A$	Max	5.0	5.0	5.0	5.0
				Typ	1.0	1.0	1.0	1.0
Capacitance - Across Output		$I_F = 0mA, V_L = 1V$ $I_F = 0mA, V_L = 50V$	pF	Typ	200	170	200	170
				Typ	20	25	20	25
Thermal Offset Voltage		$I_F = 5mA$	$\mu V$	Typ	0.2	0.2	0.2	0.2
<b>General Characteristics</b>								
Dielectric Strength - Input to Output		$t = 60sec$	VRMS	Min	3750	3750	3750	3750
Capacitance - Input to Output			pF	Typ	0.8	0.8	1.2	1.2
Power Dissipation	$P_{Diss}$		mW	Max	500	500	600	600

### Notes:

- 1:  $V_L$  for LED Forward Current - Turn off is 50 Volts less than "Switching Voltage : Max"
- 2: For LCB110 and LCB126: Output connected to pins 4 and 6.  
For LBB110 and LBB126: Each channel.
- 3: For LCB110 and LCB126: Output connected to pin 5(-) and pins 4 & 6(+).  
For LBB110 and LBB126: Both channels switching simultaneously
- 4: For LCB110 and LCB126: Output connected to pin 5(-) and pins 4 & 6(+).
- 5: Specifications subject to change without notice



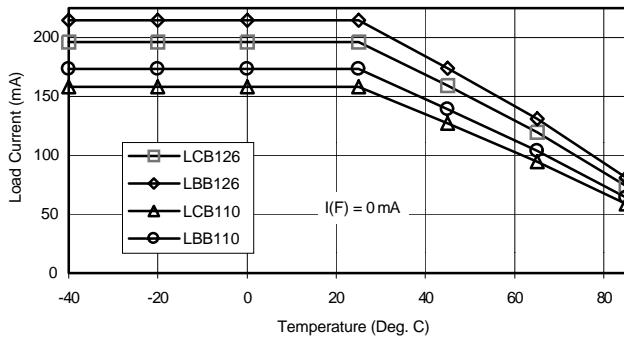
Schematic Top View:  
Mold mark on top of relay indicates Pin #1

\*  $I_F = 10mA$

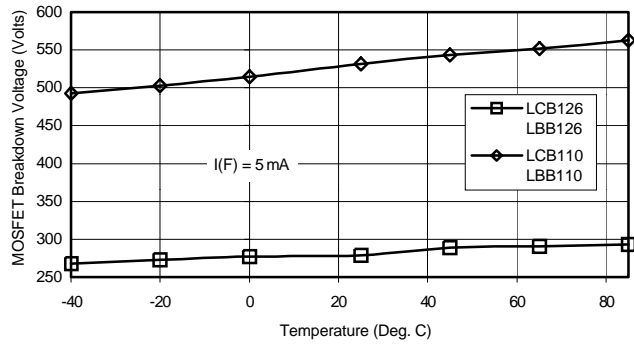
For recommended applications and more information contact:  
**USA: Sales Support (877) 502-5500 Tech Support (877) 702-7700 FAX (619) 710-8540**  
 Crydom Corp, 2320 Paseo de las Americas, Ste. 201, San Diego, CA 92154  
 Email: sales@crydom.com **WEB SITE:** http://www.crydom.com

**UK:** +44 (0)1202 365070 • **FAX** +44 (0)1202 365090 Crydom International Ltd., 7 Cobham Road, Ferndown Industrial Estate, Ferndown, Dorset BH21 7PE, **Email:** intsales@crydom.com.  
**GERMANY:** +49 (0)180 3000 506

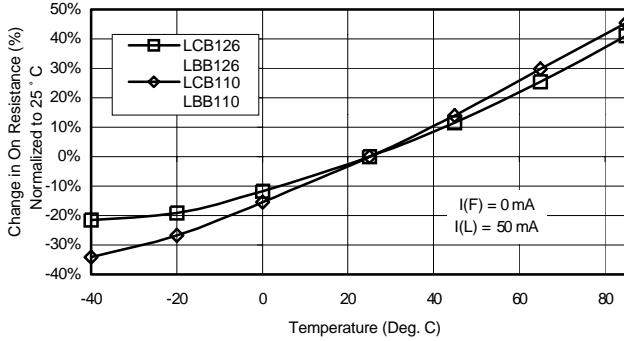
# Photomos / FORM B



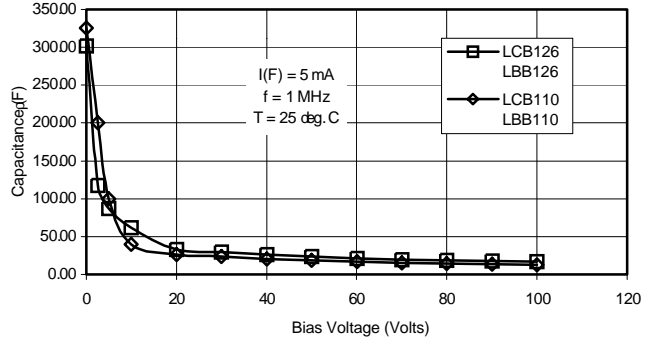
**A. Load Current vs. Ambient Temperature**



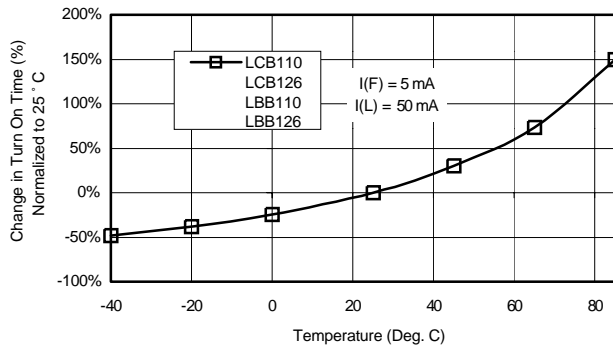
**B. Output MOSFET BV vs. Ambient Temperature**



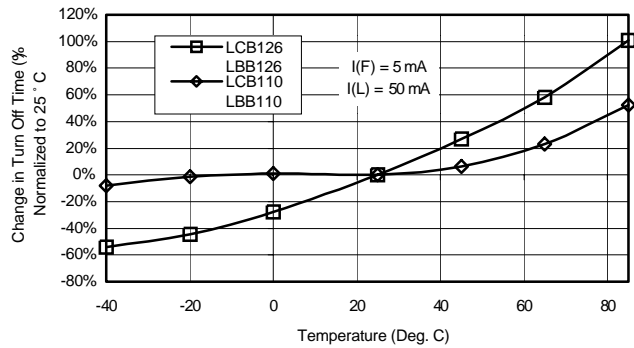
**C. On-Resistance vs. Ambient Temperature**



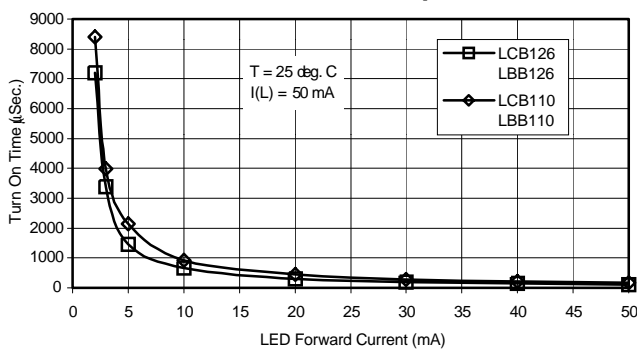
**D. Output Capacitance vs. Applied Voltage**



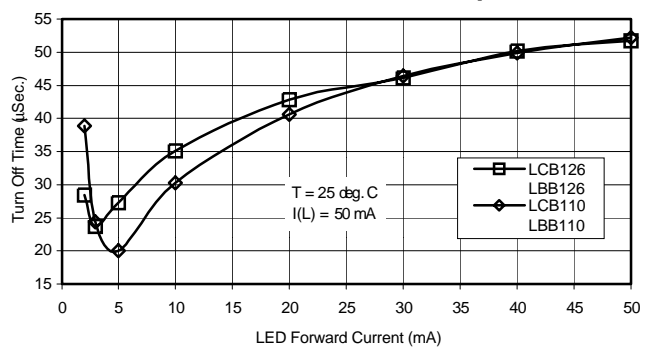
**E. On Time vs. Ambient Temperature**



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



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



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

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