

# G2 Series/ 1 FORM A

## Solid State Relays

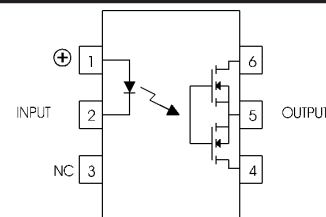
**CRYDOM**
*Control over power*

Model Number	G2-1A02 G2-1A03 G2-1A05 G2-1A06 G2-1A07				
Parameters	Sym.	Test Conditions	Units	1 Form A	1 Form A
Input Characteristics				1 Form A	1 Form A
LED Forward Current - Turn on	$I_{Fon}$	$I_L = 100mA, t = 10ms$	mADC	Max Typ	5.0 2.0
LED Forward Current - Turn off	$I_{Foff}$	$I_L = 0.2mA, V_L = (Note 1)$	mADC	Min Typ	0.1 1.8
Recommended Forward Current	$I_F$		mADC	Min Max	10 30
LED Forward Voltage	$V_F$	$I_F = 20mA$	VDC	Min Max	1.1 1.4
Maximum Input Ratings					
LED Forward Current	$I_F$		mADC	Max	50
LED Reverse Voltage Withstand	$V_R$	$I_R = 10mA$		Max	10
Output Characteristics					
Switching Voltage	$V_L$	$I_L = 50mA$	V PEAK	Max	400
Switching Current: AC Mode(Note2)	$I_L$	Pin 4 to Pin 6	mA	Max	150
Switching Current: DC Mode(Note2)	$I_L$	Pins 5(-) to Pins 4&6 (+)	mA	Max	250
Current Limit: AC Mode(Note2)	$I_{Lmt}$	$I_F = 5mA, t = 5ms$	mA	Typ	380
Current Limit: DC Mode(Note2)	$I_{Lmt}$	$I_F = 5mA, t = 5ms$	mA	Typ	540
On Resistance: AC Mode(Note2)	$R_{on}$	$I_F = 5mA, I_L = 50mA$		Max	24
On Resistance: DC Mode(Note2)	$R_{on}$	$I_F = 5mA, I_L = 50mA$		Max	6
Off State Resistance	$R_{off}$	$I_F = 0mA, V_L = 100V$	G	Min Typ	0.5 5000
Off State Leakage	$I_{off}$	$I_F = 0mA, V_L = 100V$	nA	Max Typ	200 0.5
	$I_{off}$	$I_F = 0mA, V_L = Max$	mA	Max	1
Turn On Time	$T_{on}$	$I_F = 5mA, I_L = 50mA$	ms	Max	5.0
Turn Off Time	$T_{off}$	$I_F = 5mA, I_L = 50mA$	ms	Max	1.0
Capacitance - Across Output		$I_F = 0mA, V_L = 1V$	pF	Typ	95
		$I_F = 0mA, V_L = 50V$	pF	Typ	10
Thermal Offset Voltage		$I_F = 5mA$	mV	Typ	0.2
General Characteristics					
Dielectric Strength - Input to Output		$t = 60sec$	VRMS	Min	3750
Capacitance - Input to Output			pF	Typ	0.8
Power Dissipation	$P_{Diss}$		mW	Max	500

**Notes:**

- 1:  $V_L$  for LED Forward Current - Turn Off is 50 Volts less than "Switching Voltage : Max".
- 2: See "AC Mode and DC Mode Operation" on Page 67 for further description of AC and DC Mode.
- 3: Specifications subject to change without notice.

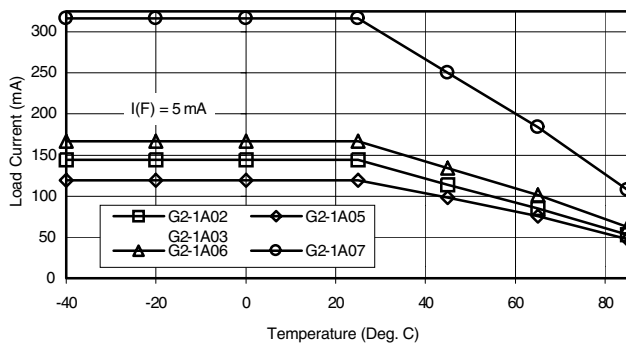
\*  $I_F = 10mA$



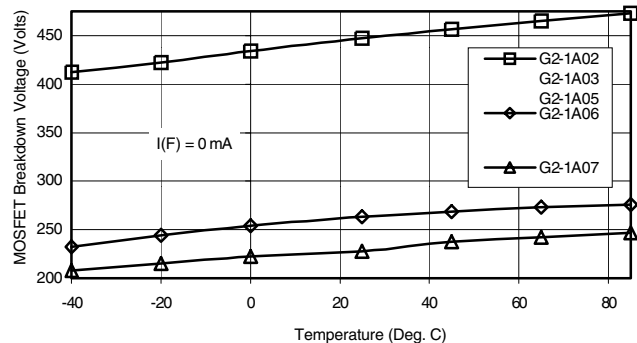
For recommended applications and more information contact:  
**USA:** (800) 8 CRYDOM • (800) 827-9366 • (858) 715-7200 • fax (858) 715-7280  
 Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com  
**WEB SITE:** <http://www.crydom.com> **FASTFAX Product Information:** (888) 267-9191

**UK:** (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU  
**GERMANY:** (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH.

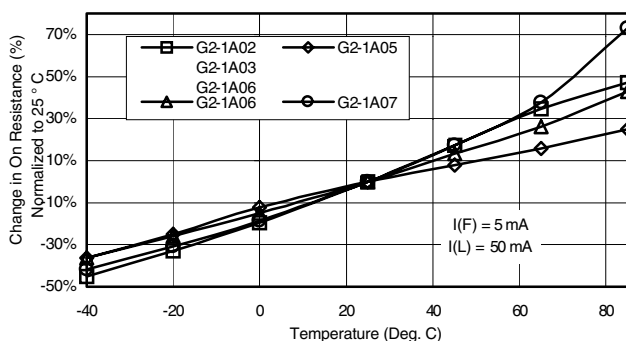
# G2 Series/ 1 FORM A



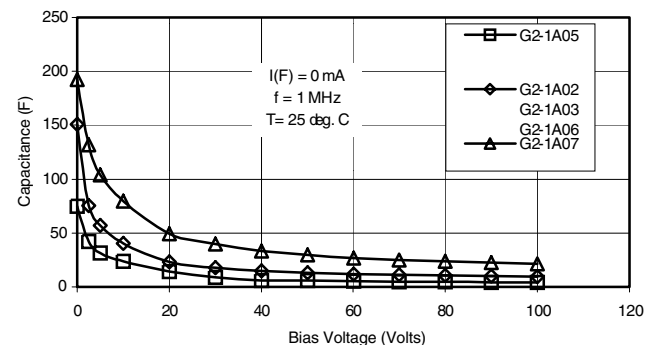
A. Load Current vs. Ambient Temperature



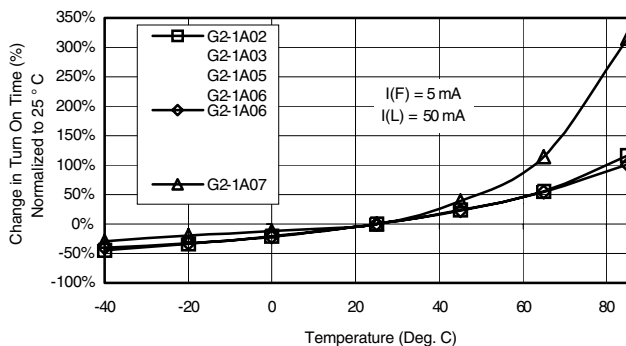
B. Output MOSFET BV vs. Ambient Temperature



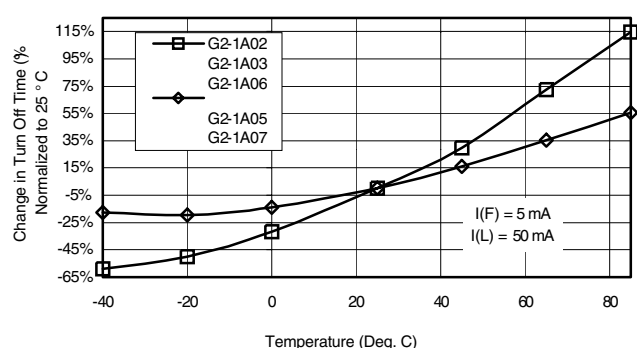
C. On-Resistance vs. Ambient Temperature



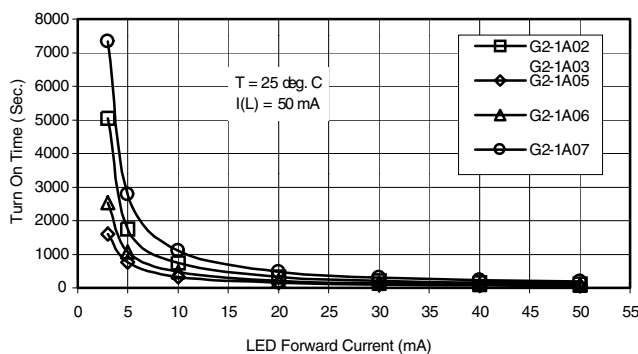
D. Output Capacitance vs. Applied Voltage



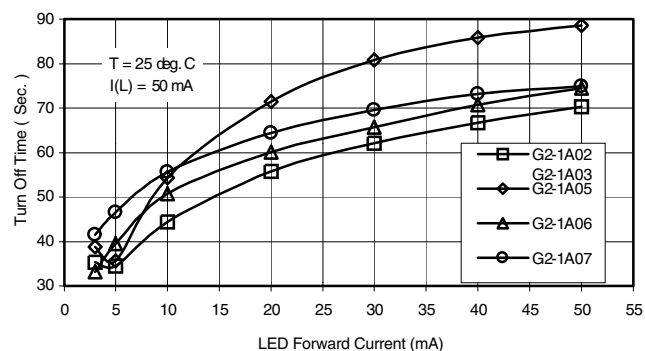
E. On Time vs. Ambient Temperature



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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