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	1 Form A	1 Form A	1 Form A
Input Characteristics									
LED Forward Current - Turn on	I_{Fon}	I_L = 100mA, t = 10ms	mADC	Max	5.0	5.0	5.0	5.0	5.0
				Typ	2.0	2.0	2.0	2.0	2.0
LED Forward Current - Turn off	I_{Foff}	I_L = 0.2mA, V_L = (Note 1)	mADC	Min	0.1	0.1	0.1	0.1	0.1
				Typ	1.8	1.8	1.8	1.8	1.8
Recommended Forward Current	I_F		mADC	Min	10	10	10	10	10
				Max	30	30	30	30	30
LED Forward Voltage	V_F	I_F = 20mA	VDC	Min	1.1	1.1	1.1	1.1	1.1
				Max	1.4	1.4	1.4	1.4	1.4
Maximum Input Ratings									
LED Forward Current	I_F		mADC	Max	50	50	50	50	50
LED Reverse Voltage Withstand	V_R	I_R = 10mA		Max	10	10	10	10	10
Output Characteristics									
Switching Voltage	V_L	I_L = 50mA	V PEAK	Max	400	400	400	250	150
Switching Current: AC Mode(Note2)	I_L	Pin 4 to Pin 6	mA	Max	150	150	120	150	450
Switching Current: DC Mode(Note2)	I_L	Pins 5(-) to Pins 4&6 (+)	mA	Max	250	250	200	250	900
Current Limit: AC Mode(Note2)	I_{Lmt}	I_F = 5mA, t = 5ms	mA	Typ	380	n/a	380	380	n/a
Current Limit: DC Mode(Note2)	I_{Lmt}	IF = 5mA, t = 5ms	mA	Typ	540	n/a	540	760	n/a
On Resistance: AC Mode(Note2)	R_{on}	I_F = 5mA, I_L = 50mA	Ω	Max	24	18	35	18	5
On Resistance: DC Mode(Note2)	R_{on}	IF = 5mA, I_L = 50mA	Ω	Max	6	4.5	8.75	4.5	1.25
Off State Resistance	R_{off}	I_F = 0mA, V_L = 100V	GΩ	Min	0.5	0.5	0.5	0.5	0.5
				Typ	5000	5000	5000	5000	5000
Off State Leakage	I_{off}	I_F = 0mA, V_L = 100V	nA	Max	200	200	200	200	200
				Typ	0.5	0.5	0.5	0.5	0.5
	I_{off}	I_F = 0mA, V_L = Max	mA	Max	1	1	1	1	1
Turn On Time	T_{on}	I_F = 5mA, I_L = 50mA	ms	Max	5.0	5.0	5.0	5.0	5.0*
Turn Off Time	T_{off}	I_F = 5mA, I_L = 50mA	ms	Max	1.0	1.0	1.0	1.0	1.0
Capacitance - Across Output		I_F = 0mA, V_L = 1V	pF	Typ	95	95	60	110	170
		I_F = 0mA, V_L = 50V	pF	Typ	10	10	7	15	30
Thermal Offset Voltage		I_F = 5mA	mV	Typ	0.2	0.2	0.2	0.2	0.2
General Characteristics									
Dielectric Strength - Input to Output		t = 60sec	VRMS	Min	3750	3750	3750	3750	3750
Capacitance - Input to Output			pF	Typ	0.8	0.8	0.8	0.8	0.8
Power Dissipation	P_{Diss}		mW	Max	500	500	500	500	600

Notes:

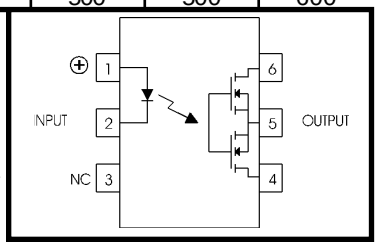
1: V_L for LED Forward Current - Turn Off is 50 Volts less than "Switching Voltage : Max".

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

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



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.
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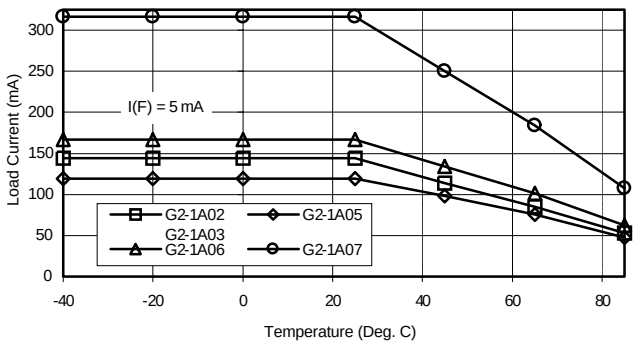
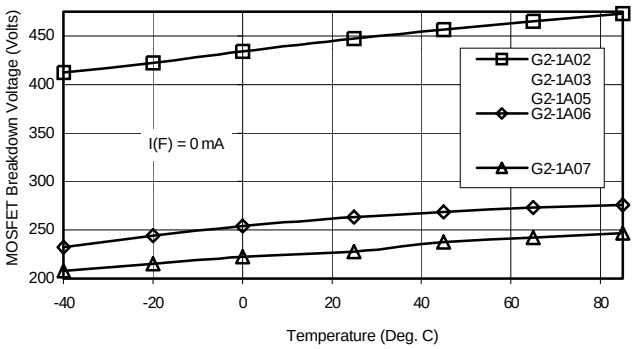
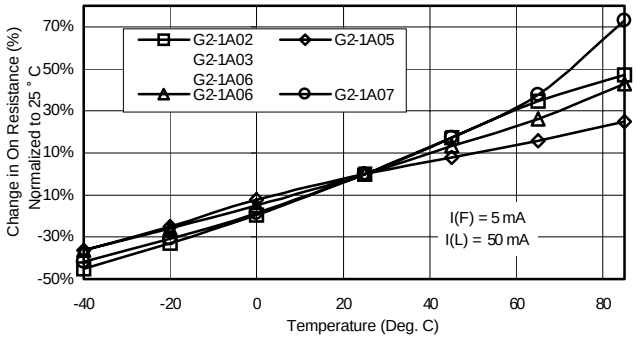
G2 Series/ 1 FORM A



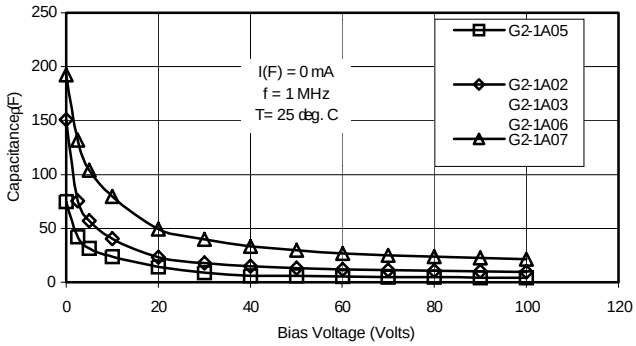
A. Load Current vs. Ambient Temperature



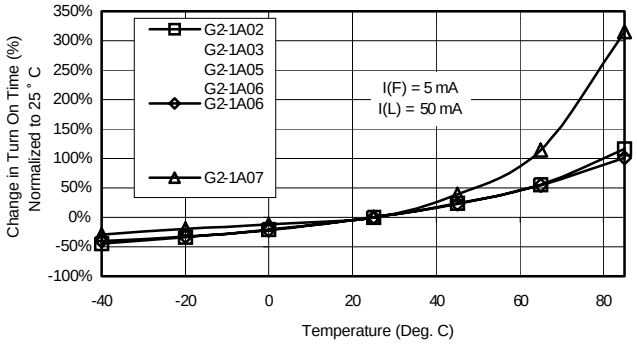
B. Output MOSFET BV vs. Ambient Temperature



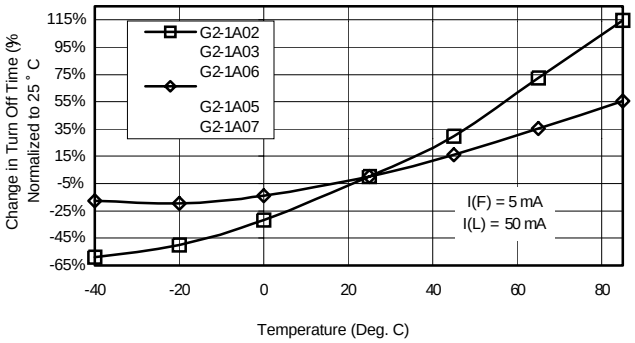
C. On-Resistance vs. Ambient Temperature



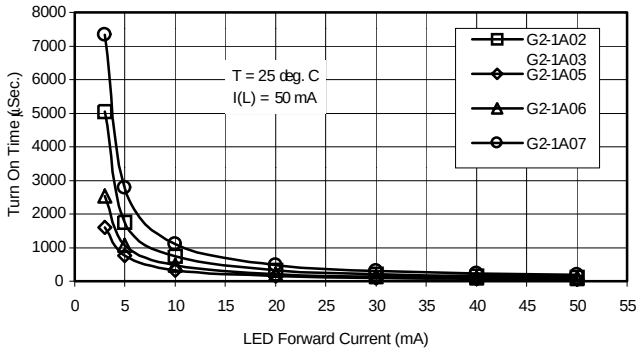
D. Output Capacitance vs. Applied Voltage



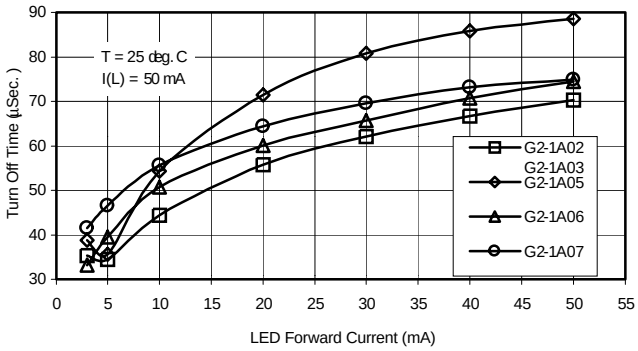
E. On Time vs. Ambient Temperature



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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