

G2 Series/ **DUAL FORM A**

Solid State Relays



Model Number

G2-DA01 **G2-DA02** **G2-DA03** **G2-DA06**
Dual Form A Dual Form A Dual Form A Dual Form A

Parameters

Input Characteristics

	Sym.	Test Conditions	Units		G2-DA01	G2-DA02	G2-DA03	G2-DA06
LED Forward Current - Turn on	I_{Fon}	$I_L = 100mA, t = 10ms$	mADC	Max Typ	5.0 2.0	5.0 2.0	5.0 2.0	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	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

Maximum Input Ratings

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

Output Characteristics

Switching Voltage	V_L	$I_L = 50mA$	V PEAK	Max	400	400	400	250
Switching Current	I_L	Each Channel Both Ch's Simultaneously	mA	Max	150	120	180	180
			mA	Max	110	70	125	125
Current Limit	I_{Lmt}	$I_F = 5mA, t = 5ms$	mA	Typ	380	380	n/a	380
On Resistance	R_{on}	$I_F = 5mA, I_L = 50mA$	Ω	Max	24	35	18	18
Off State Resistance	R_{off}	$I_F = 0mA, V_L = 100V$	G Ω	Min Typ	0.5 5000	0.5 5000	0.5 5000	0.5 5000
			nA	Max Typ	200 0.5	200 0.5	200 0.5	200 0.5
Off State Leakage	I_{off}	$I_F = 0mA, V_L = 100V$	nA	Max	200	200	200	200
			mA	Typ Max	0.5 1	0.5 1	0.5 1	0.5 1
Turn On Time	T_{on}	$I_F = 5mA, I_L = 50mA$	ms	Max	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
Capacitance - Across Output		$I_F = 0mA, V_L = 1V$ $I_F = 0mA, V_L = 50V$	pF	Typ	95	60	95	110
			pF	Typ	10	7	10	5
Thermal Offset Voltage		$I_F = 5mA$	mV	Typ	0.2	0.2	0.2	0.2

General Characteristics

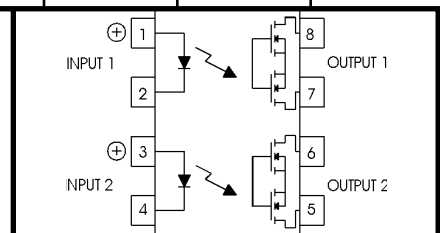
Dielectric Strength - Input to Output		$t = 60sec$	VRMS	Min	3750	3750	3750	3750
Capacitance - Input to Output			pF	Typ	1.2	1.2	1.2	1.2
Power Dissipation	P_{Diss}		mW	Max	600	600	600	600

Notes:

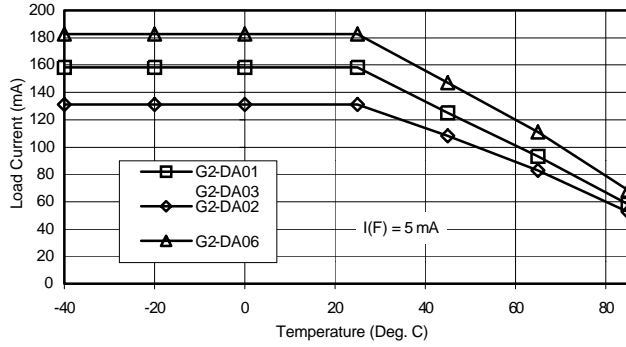
1: V_L for LED Forward Current - Turn Off is 50 Volts less than "Switching Voltage : Max".

2: Specifications subject to change without notice.

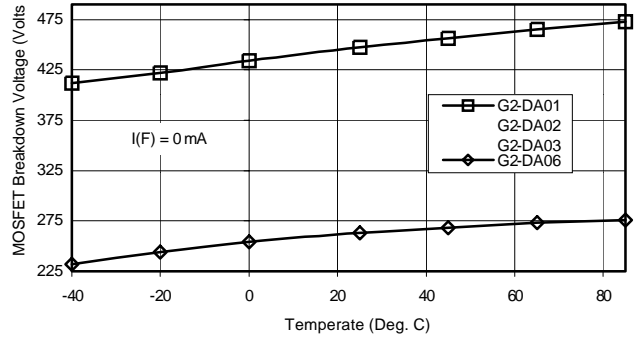
Schematic Top View:
Mold mark on top of relay indicates Pin #1



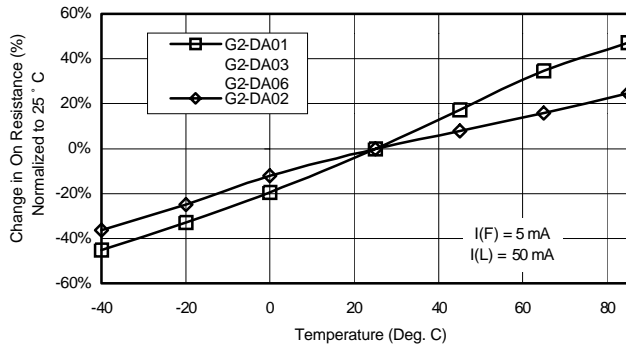
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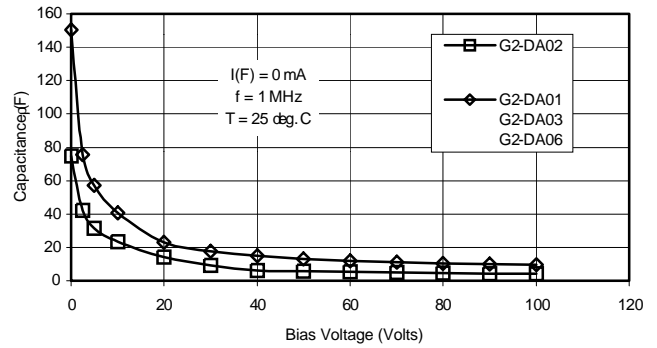
A. Load Current vs. Ambient Temperature



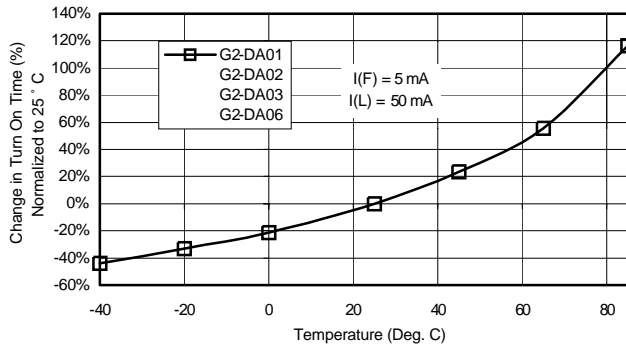
B. Output MOSFET BV vs. Ambient Temperature



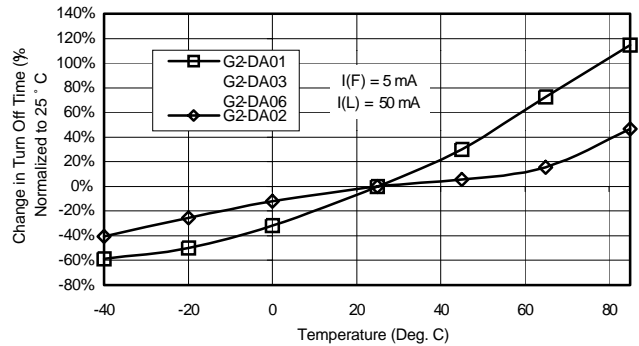
C. On-Resistance vs. Ambient Temperature



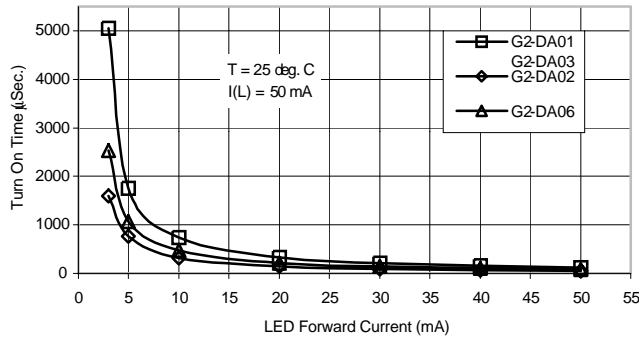
D. Output Capacitance vs. Applied Voltage



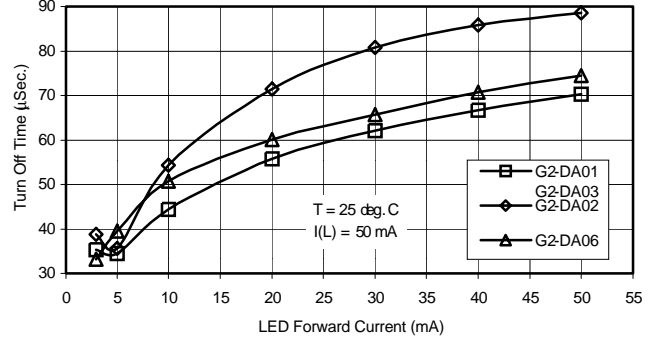
E. On Time vs. Ambient Temperature



F. Turn Off Time vs. Ambient Temperature



G. Turn On Time vs. LED Forward Current



H. Turn Off Time vs. LED Forward Current