

G2 Series/ 1 FORM A

Solid State Relays

CRYDOM

Control over power

Model Number

G2-1A02 G2-1A03 G2-1A05 G2-1A06 G2-1A07 G2-1A13

Parameters

Input Characteristics

| Parameters | Sym. | Test Conditions | Units | | 1 Form A | 1 Form A | 1 Form A | 1 Form A | 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 | 5.0 2.0 | 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 | 0.1 1.8 | 0.1 1.8 |
| Recommended Forward Current | I_F | | mADC | Min Max | 10 30 | 10 30 | 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 | 1.1 1.4 | 1.1 1.4 |

Maximum Input Ratings

| | | | | | | | | | | |
|-------------------------------|-------|--------------|------|-----|----|----|----|----|----|----|
| LED Forward Current | I_F | | mADC | Max | 50 | 50 | 50 | 50 | 50 | 50 |
| LED Reverse Voltage Withstand | V_R | $I_R = 10mA$ | | Max | 10 | 10 | 10 | 10 | 10 | 10 |

Output Characteristics

| | | | | | | | | | | |
|-----------------------------------|-----------|---------------------------|--------|---------|-------------|-------------|-------------|-------------|-------------|-------------|
| Switching Voltage | V_L | $I_L = 50mA$ | V PEAK | Max | 400 | 400 | 400 | 250 | 150 | 400 |
| Switching Current: AC Mode(Note2) | I_L | Pin 4 to Pin 6 | mA | Max | 150 | 150 | 120 | 150 | 450 | 225 |
| Switching Current: DC Mode(Note2) | I_L | Pins 5(-) to Pins 4&6 (+) | mA | Max | 250 | 250 | 200 | 250 | 900 | 425 |
| Current Limit: AC Mode(Note2) | I_{Lmt} | $I_F = 5mA, t = 5ms$ | mA | Typ | 380 | n/a | 380 | 380 | n/a | n/a |
| Current Limit: DC Mode(Note2) | I_{Lmt} | $I_F = 5mA, t = 5ms$ | mA | Typ | 540 | n/a | 540 | 760 | n/a | n/a |
| On Resistance: AC Mode(Note2) | R_{on} | $I_F = 5mA, I_L = 50mA$ | V | Max | 24 | 18 | 35 | 18 | 5 | 9 |
| On Resistance: DC Mode(Note2) | R_{on} | $I_F = 5mA, I_L = 50mA$ | V | Max | 6 | 4.5 | 8.75 | 4.5 | 1.25 | 2.25 |
| Off State Resistance | R_{off} | $I_F = 0mA, V_L = 100V$ | GV | Min Typ | 0.5 5000 | 0.5 5000 | 0.5 5000 | 0.5 5000 | 0.5 5000 | 0.5 5000 |
| Off State Leakage | I_{off} | $I_F = 0mA, V_L = 100V$ | nA | Max Typ | 200 0.5 | 200 0.5 | 200 0.5 | 200 0.5 | 200 0.5 | 200 0.5 |
| | I_{off} | $I_F = 0mA, V_L = Max$ | mA | Max | 1 | 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* | 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 | 1.0 |
| Capacitance - Across Output | | $I_F = 0mA, V_L = 1V$ | pF | Typ | 95 | 95 | 60 | 110 | 170 | 225 |
| | | $I_F = 0mA, V_L = 50V$ | pF | Typ | 10 | 10 | 7 | 15 | 30 | 10 |
| Thermal Offset Voltage | | $I_F = 5mA$ | mV | Typ | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

General Characteristics

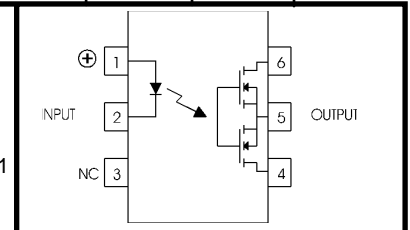
| | | | | | | | | | | |
|---------------------------------------|------------|-------------|------|-----|------|------|------|------|------|------|
| Dielectric Strength - Input to Output | | $t = 60sec$ | VRMS | Min | 3750 | 3750 | 3750 | 3750 | 3750 | 3750 |
| Capacitance - Input to Output | | | pF | Typ | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 1.1 |
| Power Dissipation | P_{Diss} | | mW | Max | 500 | 500 | 500 | 500 | 600 | 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.

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

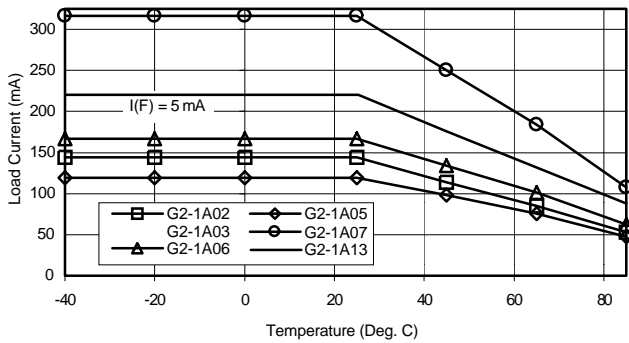
* $I_F = 10mA$



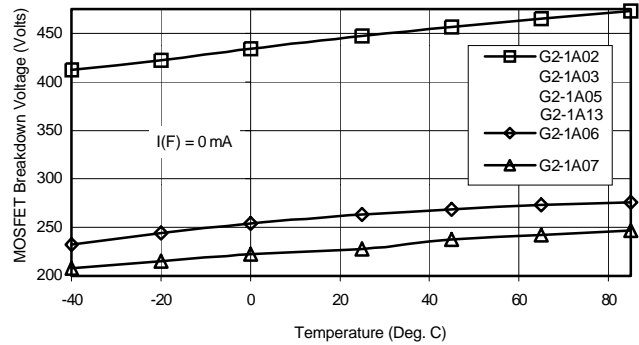
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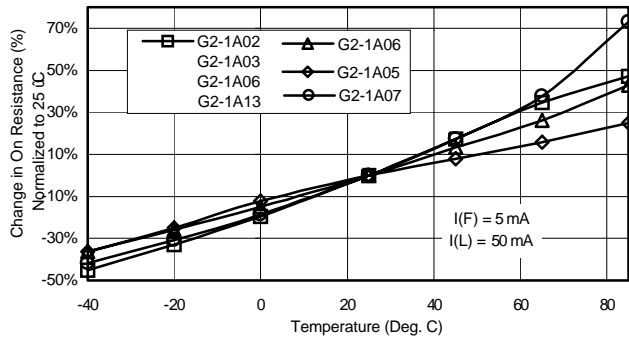
G2 Series/ 1 FORM A



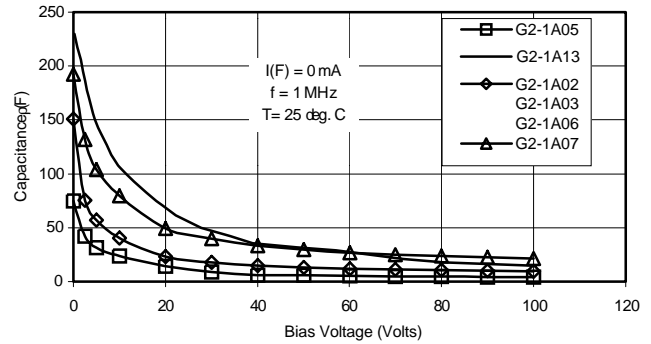
A. Load Current vs. Ambient Temperature



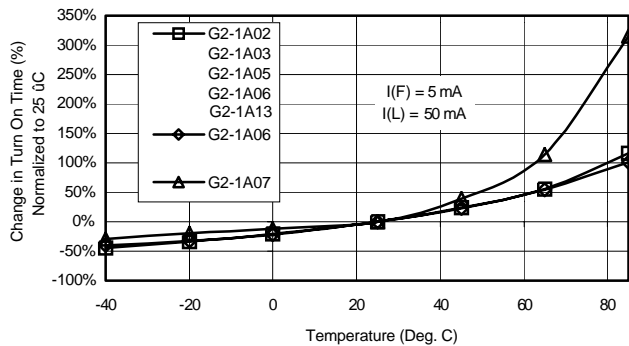
B. Output MOSFET BV vs. Ambient Temperature



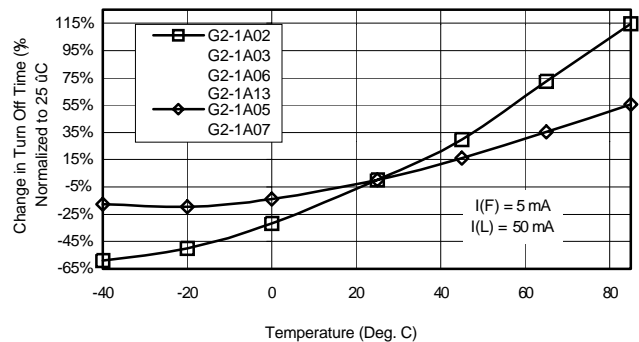
C. On-Resistance vs. Ambient Temperature



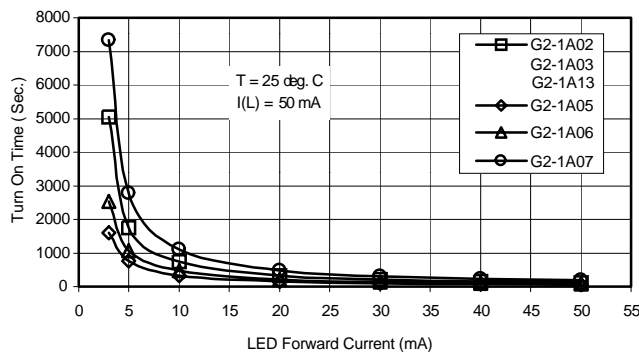
D. Output Capacitance vs. Applied Voltage



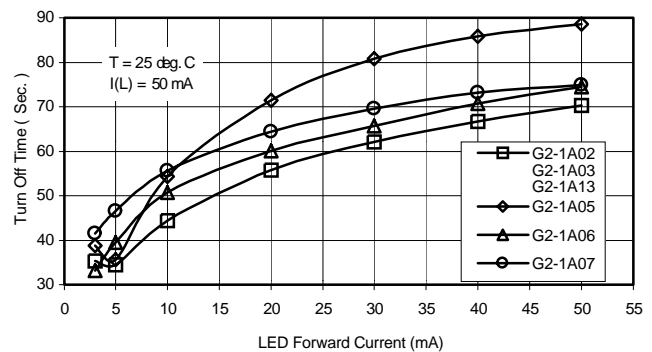
E. On Time vs. Ambient Temperature



F. Turn Off Time vs. Ambient Temperature



G. Turn On Time vs. LED Forward Current



H. Turn Off Time vs. LED Forward Current



Search Results

PhotoMOS

| Part No. | Max Switch Voltage | Max Switch Current | - | - |
|----------------------------|--------------------|--------------------|---|---|
| G2-1A02-SR | 400 | 250 | - | - |
| G2-1A02-ST | 400 | 250 | - | - |
| G2-1A02-TT | 400 | 250 | - | - |
| G2-1A03-SR | 400 | 250 | - | - |
| G2-1A03-ST | 400 | 250 | - | - |
| G2-1A03-TT | 400 | 250 | - | - |
| G2-1A05-SR | 400 | 200 | - | - |
| G2-1A05-ST | 400 | 200 | - | - |
| G2-1A05-TT | 400 | 200 | - | - |
| G2-1A06-SR | 250 | 250 | - | - |
| G2-1A06-ST | 250 | 250 | - | - |
| G2-1A06-TT | 250 | 250 | - | - |
| G2-1A07-SR | 150 | 900 | - | - |
| G2-1A07-ST | 150 | 900 | - | - |
| G2-1A07-TT | 150 | 900 | - | - |
| G2-1A13-SR | 400 | 425 | - | - |
| G2-1A13-ST | 400 | 425 | - | - |
| G2-1A13-TT | 400 | 425 | - | - |
| G2-1A23-SR | 100 | 1000 | - | - |
| G2-1A23-ST | 100 | 1000 | - | - |
| G2-1A23-TT | 100 | 1000 | - | - |
| G2-1A33-SR | 600 | 350 | - | - |
| G2-1A33-ST | 600 | 350 | - | - |
| G2-1A33-TT | 600 | 350 | - | - |

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