

G2 Series/ 1A/1B

Solid State Relays

CRYDOM

Control over power

| Model Number | | | | | G2-AB01 | G2-AB02 |
|---------------------------------------|------------|---|----------|------------|-------------|-------------|
| Parameters | Sym. | Test Conditions | Units | | 1A/1B | 1A/1B |
| Input Characteristics | | | | | | |
| LED Forward Current - Turn on | I_{Fon} | $I_L = 100mA, t = 10ms$ | mADC | Max Typ | 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 |
| Recommended Forward Current | I_F | | mADC | Min Max | 10 30 | 10 30 |
| LED Forward Voltage | V_F | $I_F = 20mA$ | VDC | Min Max | 1.1 1.4 | 1.1 1.4 |
| Maximum Input Ratings | | | | | | |
| LED Forward Current | I_F | | mADC | Max | 50 | 50 |
| LED Reverse Voltage Withstand | V_R | $I_R = 10mA$ | VDC | Max | 10 | 10 |
| Output Characteristics | | | | | | |
| Switching Voltage | V_L | $I_L = 50mA$ | V PEAK | Max | 400 | 250 |
| Switching Current | I_L | Each Channel Both Ch.'s Simultaneously | mA mA | Max Max | 150 110 | 200 150 |
| Current Limit: N.O. Channel Only | I_{Lmt} | $I_F = 5mA, t = 5ms$ | mA | Typ | 380 | 380 |
| On Resistance | R_{on} | $I_F = 5mA/0mA, I_L = 50mA$ | W | Max | 24 | 13 |
| Off State Resistance: N.O. Channel | R_{off} | $I_F = 0mA, V_L = 100V$ | GW | Min Typ | 0.5 5000 | 0.5 5000 |
| Off State Resistance: N.C. Channel | R_{off} | $I_F = 5mA, V_L = 100V$ | GW | Min Typ | 0.5 5000 | 0.5 5000 |
| Off State Leakage: N.O. Channel | I_{off} | $I_F = 0mA, V_L = 100V$ | nA | Max Typ | 200 0.17 | 200 0.17 |
| | I_{off} | $I_F = 0mA, V_L = Max$ | mA | Max | 1 | 1 |
| Off State Leakage: N.C. Channel | I_{off} | $I_F = 5mA, V_L = 100V$ | mA | Max Typ | 0.02 1 | 0.02 1 |
| | I_{off} | $I_F = 5mA, V_L = Max$ | mA | Max | 1 | 1 |
| Turn On Time | T_{on} | $I_F = 5mA, I_L = 50mA$ | ms | Max | 5.0 | 5.0 |
| Turn Off Time | T_{off} | $I_F = 5mA, I_L = 50mA$ | ms | Max | 1.0 | 1.0 |
| Thermal Offset Voltage | | $I_F = 5mA$ | mV | Typ | 0.2 | 0.2 |
| General Characteristics | | | | | | |
| Dielectric Strength - Input to Output | | $t = 60sec$ | VRMS | Min | 3750 | 3750 |
| Capacitance - Input to Output | | | pF | Typ | 1.2 | 1.2 |
| Power Dissipation | P_{Diss} | | mW | Max | 600 | 600 |

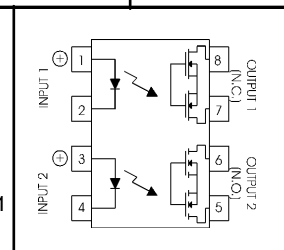
Notes:

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

2: Specifications subject to change without notice.

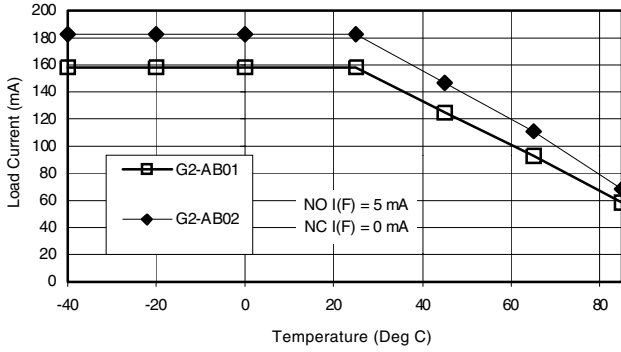
* $I_F = 10mA$

Schematic Top View:
Mold mark on top of relay indicates Pin #1
Package Drawings on Page 3

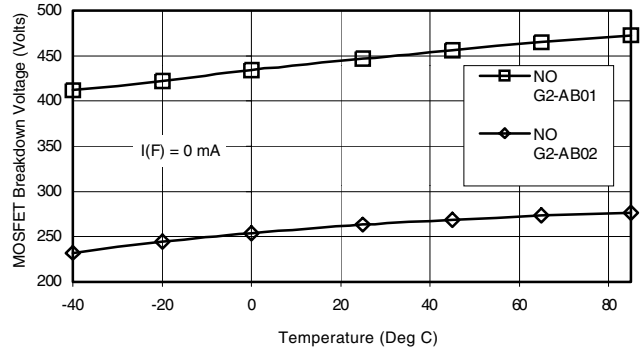


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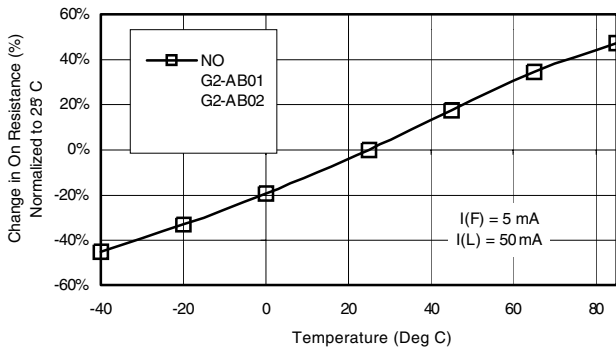
*See page 3 for characteristic curves of normally closed switches



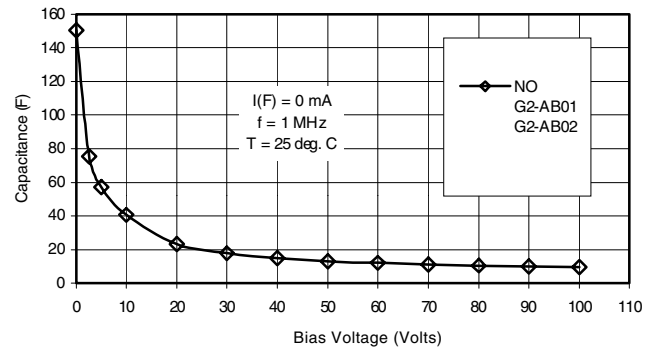
A. Load Current vs. Ambient Temperature



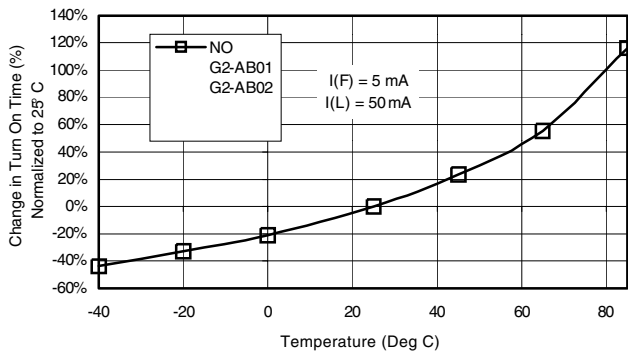
B. Output MOSFET vs. Ambient Temperature



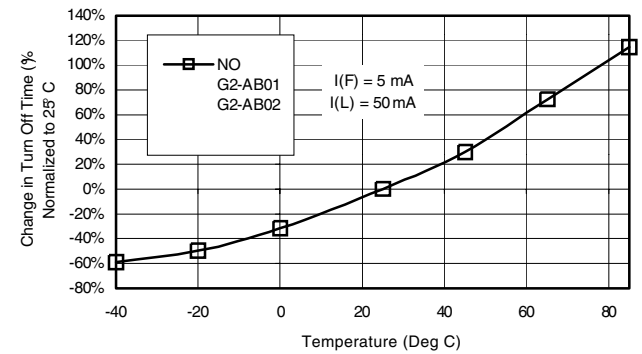
C. On-Resistance vs. Ambient Temperature



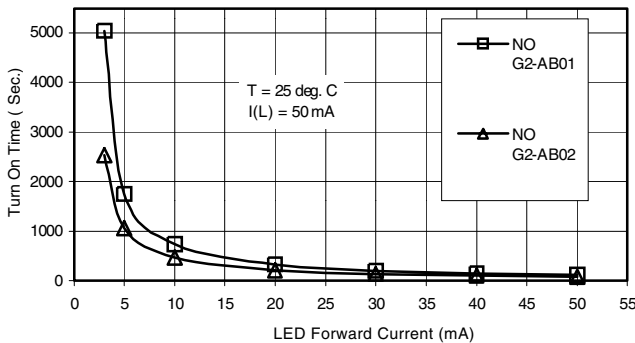
D. Output Capacitance vs. Applied Voltage



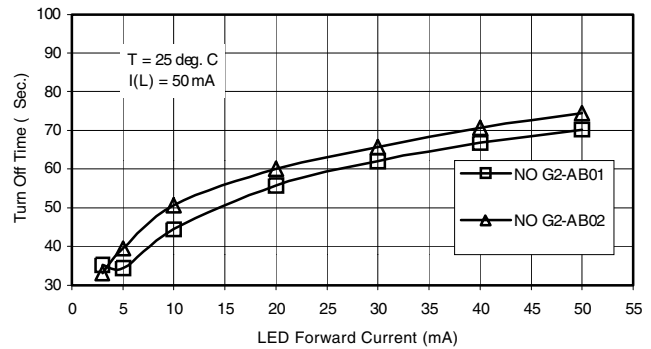
E. On Time vs. Ambient Temperature



F. Turn Off Time vs. Ambient Temperature



G. Turn On Time vs. LED Forward Current

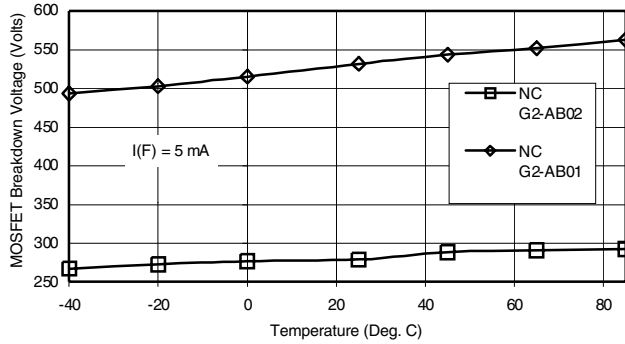


H. Turn Off Time vs. LED Forward Current

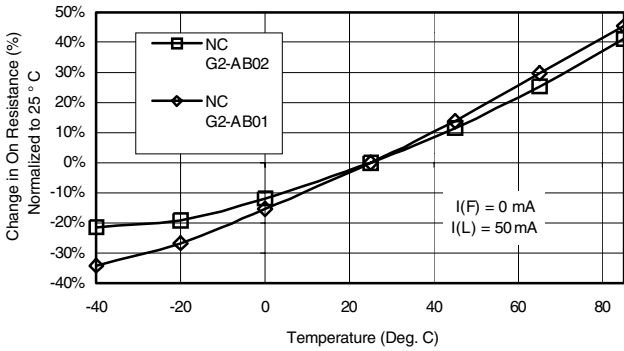
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GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH.

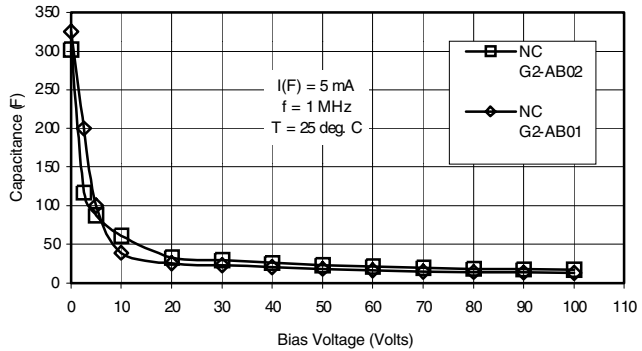
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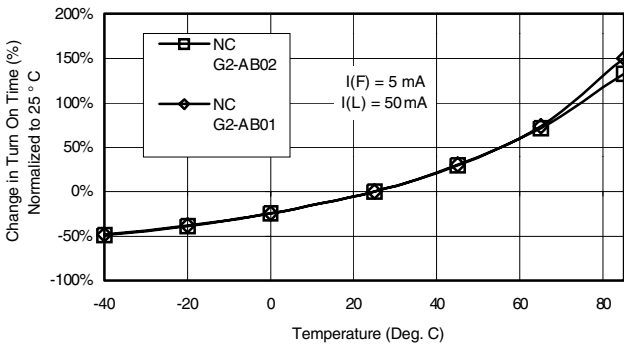
I. Output MOSFET BV vs. Ambient Temperature



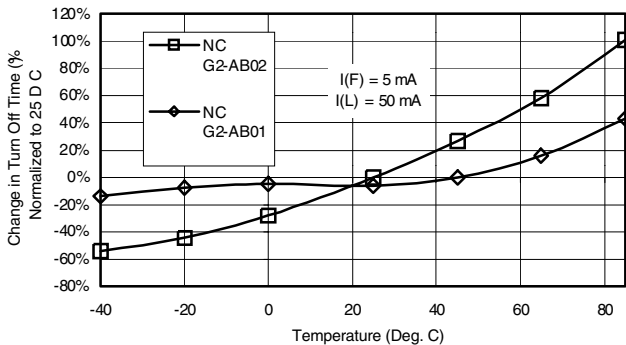
J. On-Resistance vs. Ambient Temperature



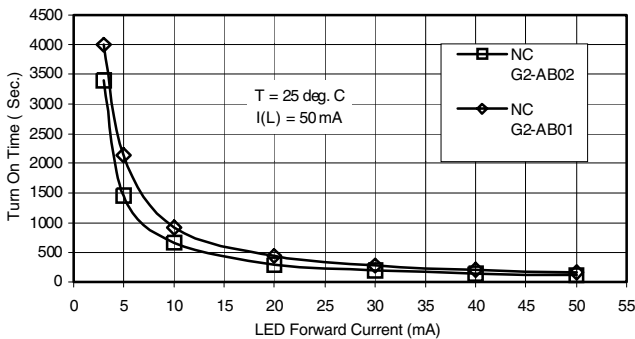
K. Output Capacitance vs. Applied Voltage



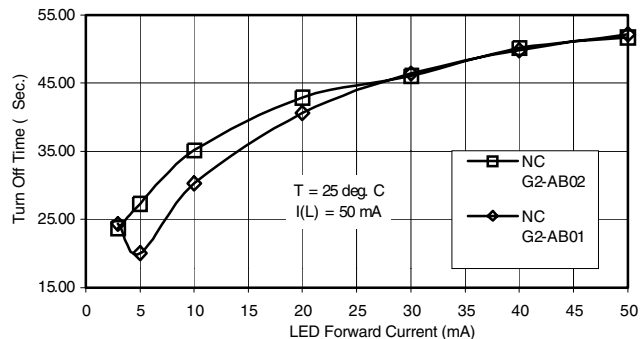
L. On Time vs. Ambient Temperature



M. Turn Off Time vs. Ambient Temperature



N. Turn On Time vs. LED Forward Current



O. Turn Off Time vs. LED Forward Current