

| | |
|------------------------------|--|
| Title of Change: | Datasheet Adjustment for MC74VHC1G14 to correct Positive Threshold Voltage and Negative Threshold Voltage. |
| Effective date: | 6 June 2017 |
| Contact information: | Contact your local ON Semiconductor Sales Office or <Rich.Field@onsemi.com> |
| Type of notification: | ON Semiconductor will consider this change accepted. |
| Change category: | <input type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input checked="" type="checkbox"/> Other <u>Datasheet</u> |

| | |
|---|--|
| Change Sub-Category(s): | <input checked="" type="checkbox"/> Datasheet/Product Doc change |
| <input type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change | <input type="checkbox"/> Shipping/Packaging/Marking |
| <input type="checkbox"/> Manufacturing Process Change <input checked="" type="checkbox"/> Product specific change | <input type="checkbox"/> Other: _____ |

| | | |
|------------------------|---|--|
| Sites Affected: | <input type="checkbox"/> All site(s) <input checked="" type="checkbox"/> not applicable <input type="checkbox"/> ON Semiconductor site(s) : | <input type="checkbox"/> External Foundry/Subcon site(s) |
|------------------------|---|--|

Description and Purpose:

The VT+ and VT- data points given in the datasheet are misleading and should be corrected.

The Min for VT+ and the Max for VT- are calculated values and the values entered are incorrect.

Min VT+ = Min VT+ + Min VH

Max VT- = Max VT- - Min VH

MC74VHC1G14 Datsheet Adjustment

Min VT+ = Min VT+ + Min VH
 Correct Min VT+

V_{CC}@3.0V **1.20** = 0.90 + 0.30
 V_{CC}@4.5V **1.75** = 1.35 + 0.40
 V_{CC}@5.5V **2.15** = 1.65 + 0.50

Max VT- = Max VT- - Min VH
 Correct Max VT-

V_{CC}@3.0V **1.90** = 2.20 - 0.30
 V_{CC}@4.5V **2.75** = 3.15 - 0.40
 V_{CC}@5.5V **3.35** = 3.85 - 0.50

MC74VHC1G14

DC ELECTRICAL CHARACTERISTICS

| Symbol | Parameter | Test Conditions | V _{CC} (V) | T _A = 25°C | | | T _A ≤ 85°C | | -55 ≤ T _A ≤ 125°C | | Unit |
|--------|----------------------------|-----------------|---------------------|-----------------------|-----|------|-----------------------|------|------------------------------|------|------|
| | | | | Min | Typ | Max | Min | Max | Min | Max | |
| VT+ | Positive Threshold Voltage | | 3.0 | 1.85 | 2.0 | 2.20 | | 2.20 | | 2.20 | V |
| | | | 4.5 | 2.86 | 3.0 | 3.15 | | 3.15 | | 3.15 | |
| | | | 5.5 | 3.50 | 3.6 | 3.85 | | 3.85 | | 3.85 | |
| VT- | Negative Threshold Voltage | | 3.0 | 0.9 | 1.5 | 1.65 | 0.9 | | 0.9 | | V |
| | | | 4.5 | 1.35 | 2.3 | 2.46 | 1.35 | | 1.35 | | |
| | | | 5.5 | 1.65 | 2.9 | 3.05 | 1.65 | | 1.65 | | |

The change will not impact form, fit, or function of product(s)''

List of affected Standard Parts:

- MC74VHC1G14DFT1G
- MC74VHC1G14DFT2G
- MC74VHC1G14DTT1G
- NLJHC1G14DFT2G