

## ADM6315

### FEATURES

**Superior Upgrade for MAX6315**  
**Specified Over Temperature**  
**Low Power Consumption (5  $\mu$ A Typ)**  
**Precision Voltage Monitor of Voltages from 2.5 V to 5 V at 100 mV Increments**  
**Reset Assertion Down to  $V_{CC} > 1$  V**  
**Built-In Manual Reset**  
**Pin Compatible with the ADM811**

### APPLICATIONS

**Microprocessor Systems**  
**Controllers**  
**Intelligent Instruments**  
**Automotive Systems**  
**Safety Systems**  
**Portable Instruments**

### GENERAL DESCRIPTION

The ADM6315 is a reliable voltage monitoring device that is suitable for use in most voltage monitoring applications.

The ADM6315 is designed to monitor as little as a 1.8% degradation of a power supply voltage. Voltages that can be monitored by the ADM6315 are all voltages (at 100 mV increments) from 2.5 V to 5 V.

Included in this circuit is a debounced Manual Reset input. Reset can be activated using an ordinary switch (pulling  $\overline{MR}$  low), by a low input from another digital device or by a degradation of the supply voltage. The manual reset function is very useful, especially if the circuit in which the ADM6315 is operating, enters into a state that can only be detected by the user. Allowing the user to manually reset a system can reduce the damage or danger that could be otherwise caused by an out of control or locked-up system.

The ADM6315 comes in a cost and space efficient SOT-143 package.

### FUNCTIONAL BLOCK DIAGRAM

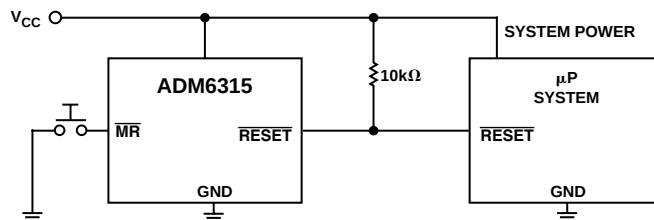
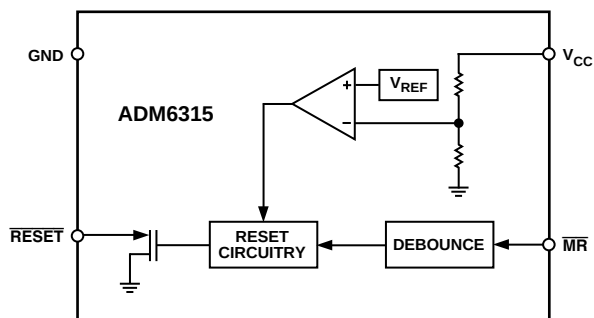


Figure 1. Typical Operating Circuit

REV. 0

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# ADM6315—SPECIFICATIONS (V<sub>CC</sub> = Full Operating Range, T<sub>A</sub> = T<sub>MIN</sub> to T<sub>MAX</sub>, V<sub>CC</sub> Typ = 5 V unless otherwise noted)

| Parameter                                                   | Min                    | Typ             | Max                    | Units  | Test Conditions/Comments                                                 |
|-------------------------------------------------------------|------------------------|-----------------|------------------------|--------|--------------------------------------------------------------------------|
| <b>SUPPLY</b>                                               |                        |                 |                        |        |                                                                          |
| Operating Voltage                                           | 1.0                    |                 | 5.5                    | V      | T <sub>A</sub> = 0°C to +70°C                                            |
| V <sub>CC</sub> Supply Current                              |                        | 5               | 12                     | μA     | V <sub>CC</sub> = 5.5 V (No Load)                                        |
|                                                             |                        | 4               | 12                     | μA     | V <sub>CC</sub> = 3.6 V (No Load)                                        |
| <b>RESET VOLTAGE THRESHOLD (V<sub>TH</sub>)<sup>1</sup></b> |                        |                 |                        |        |                                                                          |
|                                                             | V <sub>TH</sub> − 1.8% | V <sub>TH</sub> | V <sub>TH</sub> + 1.8% | V      | T <sub>A</sub> = +25°C                                                   |
|                                                             | V <sub>TH</sub> − 2.5% |                 | V <sub>TH</sub> + 2.5% | V      | T <sub>A</sub> = 0°C to +70°C                                            |
| <b>RESET THRESHOLD TEMPERATURE COEFFICIENT</b>              |                        | 60              |                        | ppm/°C |                                                                          |
| <b>V<sub>CC</sub> TO RESET DELAY</b>                        |                        | 35              |                        | μs     | V <sub>CC</sub> = Falling at 1 mV/μs                                     |
| <b>RESET ACTIVE TIMEOUT PERIOD</b>                          | 1                      | 1.4             | 2.6                    | ms     | ADM6315xxD1                                                              |
|                                                             | 20                     | 28              | 53                     | ms     | ADM6315xxD2                                                              |
|                                                             | 140                    | 200             | 370                    | ms     | ADM6315xxD3                                                              |
|                                                             | 1120                   | 1570            | 2960                   | ms     | ADM6315xxD4                                                              |
| <b>MANUAL RESET</b>                                         |                        |                 |                        |        |                                                                          |
| Input Threshold                                             | 0.8                    |                 | 2.4                    | V      | V <sub>TH</sub> > 4.0 V (V <sub>IL</sub> )                               |
|                                                             |                        |                 |                        | V      | V <sub>TH</sub> > 4.0 V (V <sub>IH</sub> )                               |
|                                                             | 0.3 V <sub>CC</sub>    |                 | 0.7 V <sub>CC</sub>    | V      | V <sub>TH</sub> < 4.0 V (V <sub>IL</sub> )                               |
|                                                             |                        |                 |                        | V      | V <sub>TH</sub> < 4.0 V (V <sub>IH</sub> )                               |
| Minimum Input Pulse                                         | 1                      |                 |                        | μs     |                                                                          |
| Glitch Rejection                                            |                        | 100             |                        | ns     |                                                                          |
| To Reset Delay                                              |                        | 500             |                        | ns     |                                                                          |
| Pull-Up Resistance                                          | 32                     | 63              | 100                    | kΩ     |                                                                          |
| <b><math>\overline{\text{RESET}}</math> OUTPUT</b>          |                        |                 |                        |        |                                                                          |
| Output Voltage                                              |                        |                 | 0.4                    | V      | V <sub>CC</sub> > 4.25 V, I <sub>SINK</sub> = 3.2 mA                     |
|                                                             |                        |                 | 0.3                    | V      | V <sub>CC</sub> > 2.5 V, I <sub>SINK</sub> = 1.2 mA                      |
|                                                             |                        |                 | 0.3                    | V      | V <sub>CC</sub> > 1 V, I <sub>SINK</sub> = 80 mA                         |
| Output Leakage Current                                      |                        |                 | 1                      | μA     | V <sub>CC</sub> > V <sub>TH</sub> , $\overline{\text{RESET}}$ Deasserted |

## NOTES

<sup>1</sup>The ADM6315 is available with preset reset threshold values from 2.5 V to 5 V at 100 mV increments.

Specifications subject to change without notice.

**ABSOLUTE MAXIMUM RATINGS\***(T<sub>A</sub> = +25°C unless otherwise noted)**Terminal Voltage (With Respect to Ground)**V<sub>CC</sub> ..... -0.3 V to +6 VAll Other Inputs ..... -0.3 V to V<sub>CC</sub> + 0.3 V**Input Current**V<sub>CC</sub> ..... 20 mA**Output Current** $\overline{\text{RESET}}$  ..... 20 mA**Power Dissipation (T<sub>A</sub> = +70°C)**

RT-4, SOT-143

Derate by 4 mW/°C above +70°C ..... 320 mW

 $\theta_{JA}$  Thermal Impedance ..... 330°C/W

Operating Temperature Range ..... -40°C to +85°C

Storage Temperature Range ..... -65°C to +160°C

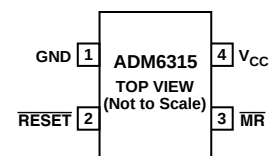
Lead Temperature (Soldering, 10 secs) ..... +300°C

Vapor Phase (60 sec) ..... +215°C

Infrared (15 sec) ..... +220°C

ESD Rating ..... 2.5 kV

\*Stresses above those listed under Absolute Maximum Ratings may cause permanent damage to the device. This is a stress rating only; functional operation of the device at these or any other conditions above those listed in the operational sections of this specification is not implied. Exposure to absolute maximum ratings for extended periods of time may affect device reliability.

**PIN CONFIGURATION****PIN FUNCTION DESCRIPTIONS**

| Pin | Mnemonic                  | Function                                                                                                                                                                                                                                                                                                                                                        |
|-----|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | GND                       | 0 V. Ground reference for all signals.                                                                                                                                                                                                                                                                                                                          |
| 2   | $\overline{\text{RESET}}$ | Active Low Logic Output. $\overline{\text{RESET}}$ remains low while V <sub>CC</sub> is below the reset threshold or when $\overline{\text{MR}}$ is low, $\overline{\text{RESET}}$ then remains low for either 1 ms (min), 20 ms (min), 140 ms (min) or 1120 ms (min) after V <sub>CC</sub> rises above the reset threshold and $\overline{\text{MR}}$ is high. |
| 3   | $\overline{\text{MR}}$    | Manual Reset. This active low de-bounced input will ignore input pulses of 100 ns (typical) and is guaranteed to accept input pulses of greater than 1 $\mu$ s. Leave floating when not used.                                                                                                                                                                   |
| 4   | V <sub>CC</sub>           | Monitored supply voltage.                                                                                                                                                                                                                                                                                                                                       |

**ORDERING GUIDE**

| Model               | Temperature Range | Package Description   | Package Option |
|---------------------|-------------------|-----------------------|----------------|
| ADM6315-xxxxxxx-xx* | -40°C to +85°C    | Plastic Surface Mount | SOT-143        |

\*Refer to Tables I to IV.

# ADM6315–Typical Performance Characteristics

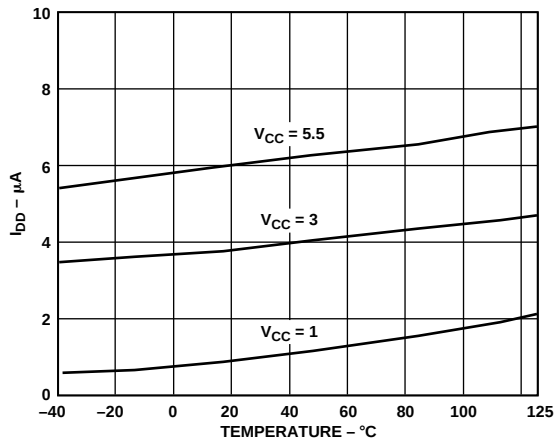


Figure 2. Supply Current vs. Temperature

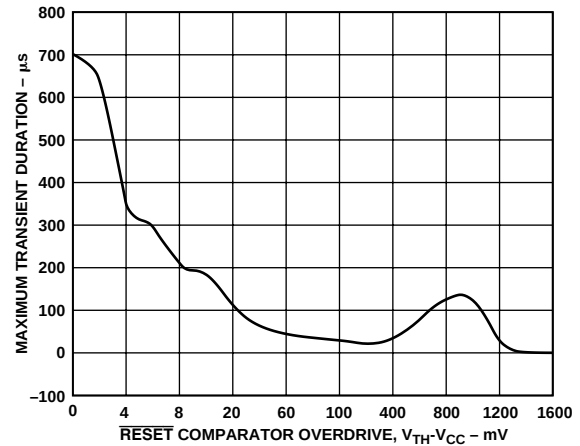


Figure 5. Maximum Transient Duration vs.  $\overline{\text{RESET}}$  Comparator Overdrive

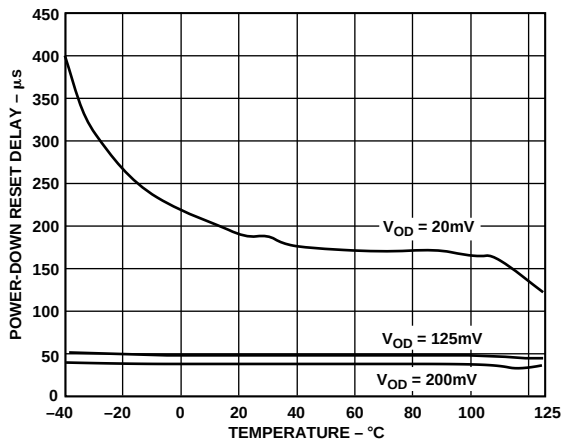


Figure 3. Power-Down Reset Delay vs. Temperature

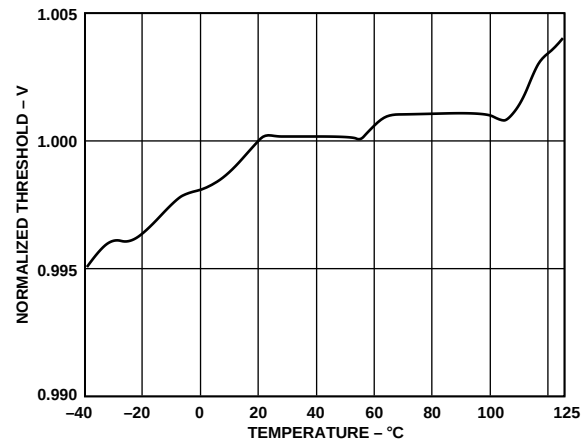


Figure 6. Normalized Reset Threshold vs. Temperature ( $V_{CC}$  Falling)

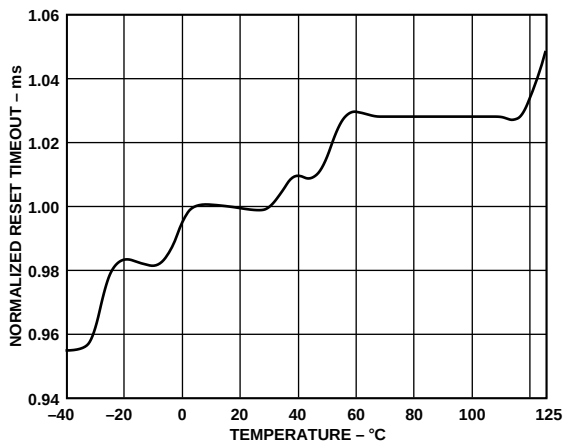


Figure 4. Normalized Reset Timeout Period vs. Temperature ( $V_{CC}$  Rising)

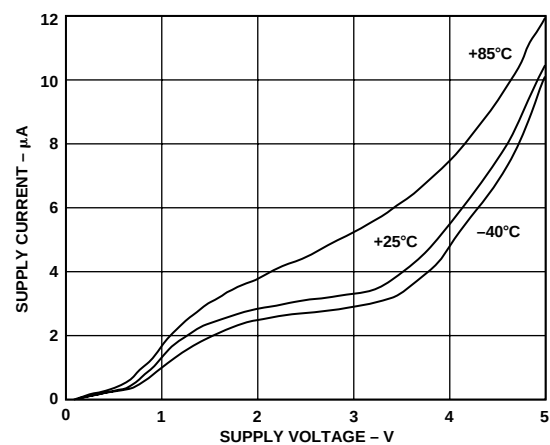


Figure 7. Supply Current vs. Supply Voltage

## INTERFACING TO OTHER DEVICES

### OUTPUT

The ADM6315 series is designed to integrate with as many devices as possible. One feature of the ADM6315 is the **RESET** open drain output, which can sink current from sources with a voltage greater than the  $V_{CC}$  of the ADM6315 input making it suitable for use in more diverse applications.

### THE BENEFITS OF A VERY ACCURATE RESET THRESHOLD

Because the ADM6315 series can operate effectively even when there are large degradations of the supply voltages (due to an accurate internal voltage reference circuit), the possibility of a malfunction during a power failure is greatly reduced.

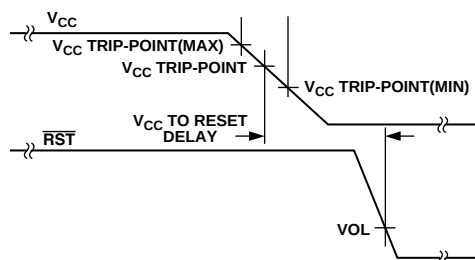


Figure 8.  $V_{CC}$  Power-Down/Brownout Timing Diagram

### DETAILED DESCRIPTION

The ADM6315 is designed to protect the integrity of a systems operation by ensuring the proper operation of the system during power-up, power-down and brownout conditions.

When the ADM6315 is powered-up (depending on the selected reset active timeout), the **RESET** output of the ADM6315 will remain low for a period typically equalling the Reset Active Timeout Period. This is designed to give the system time to power-up correctly and for the power supply to stabilize before any devices are brought out of reset and allowed to begin executing instructions. Initializing a system in this way provides a more reliable start-up for microprocessor systems.

When a brownout condition occurs (assuming  $V_{CC}$  is falling at  $1 \text{ mV}/\mu\text{s}$ ), the ADM6315 will produce a reset in typically  $35 \mu\text{s}$ . Producing a reset this fast means that the entire system can be reset together before any part of the systems' voltage falls below its recommended operating voltage. This can avoid dangerous and/or erroneous operation of a microprocessor-based system.

### MANUAL RESET INPUT

The ADM6315 also provides an additional input, **MR**. This input can be used as either a means for the system operator to manually reset the system via a switch or for a digital circuit to reset the system.

The **MR** input will (typical) ignore negative going pulses faster than  $100 \text{ ns}$  and is guaranteed to accept any negative going input pulse of a duration greater than or equal to  $1 \mu\text{s}$ . If **MR** is connected to long cables or used in a noisy environment, then placing a  $1 \mu\text{F}$  decoupling capacitor between the **MR** input and ground will further improve the glitch immunity of the ADM6315.

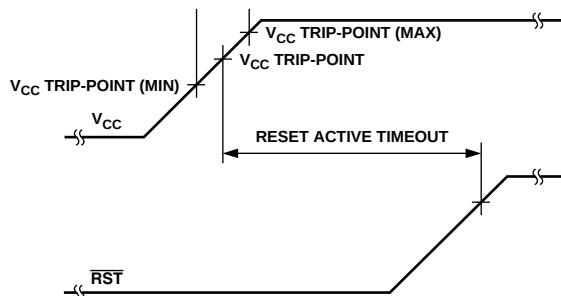


Figure 9.  $V_{CC}$  Power-Up Timing Diagram

### TRANSIENT IMMUNITY

As well as being an accurate reset circuit, the ADM6315 has good immunity to negative going transients (Figure 5). Because of this characteristic, the ADM6315 is suitable for use in noisy environments.

Figure 5 shows the reset comparator overdrive (the maximum magnitude of negative going pulses with respect to the typical reset threshold) versus pulse duration, without causing a reset.

# ADM6315

Table I.

| Model*              | Trip-Point | Min Timeout (ms) | Brand |
|---------------------|------------|------------------|-------|
| ADM6315-50D1ART-RL7 | 5.00       | 1                | MDZ   |
| ADM6315-50D1ART-RL  | 5.00       | 1                | MDZ   |
| ADM6315-49D1ART-RL7 | 4.90       | 1                | MDY   |
| ADM6315-49D1ART-RL  | 4.90       | 1                | MDY   |
| ADM6315-48D1ART-RL7 | 4.80       | 1                | MDX   |
| ADM6315-48D1ART-RL  | 4.80       | 1                | MDX   |
| ADM6315-47D1ART-RL7 | 4.70       | 1                | MDW   |
| ADM6315-47D1ART-RL  | 4.70       | 1                | MDW   |
| ADM6315-46D1ART-RL7 | 4.63       | 1                | MDV   |
| ADM6315-46D1ART-RL  | 4.63       | 1                | MDV   |
| ADM6315-45D1ART-RL7 | 4.50       | 1                | MDU   |
| ADM6315-45D1ART-RL  | 4.50       | 1                | MDU   |
| ADM6315-44D1ART-RL7 | 4.39       | 1                | MDT   |
| ADM6315-44D1ART-RL  | 4.39       | 1                | MDT   |
| ADM6315-43D1ART-RL7 | 4.30       | 1                | MDS   |
| ADM6315-43D1ART-RL  | 4.30       | 1                | MDS   |
| ADM6315-42D1ART-RL7 | 4.20       | 1                | MDR   |
| ADM6315-42D1ART-RL  | 4.20       | 1                | MDR   |
| ADM6315-41D1ART-RL7 | 4.10       | 1                | MDQ   |
| ADM6315-41D1ART-RL  | 4.10       | 1                | MDQ   |
| ADM6315-40D1ART-RL7 | 4.00       | 1                | MDP   |
| ADM6315-40D1ART-RL  | 4.00       | 1                | MDP   |
| ADM6315-39D1ART-RL7 | 3.90       | 1                | MDO   |
| ADM6315-39D1ART-RL  | 3.90       | 1                | MDO   |
| ADM6315-38D1ART-RL7 | 3.80       | 1                | MDN   |
| ADM6315-38D1ART-RL  | 3.80       | 1                | MDN   |
| ADM6315-37D1ART-RL7 | 3.70       | 1                | MDM   |
| ADM6315-37D1ART-RL  | 3.70       | 1                | MDM   |
| ADM6315-36D1ART-RL7 | 3.60       | 1                | MDL   |
| ADM6315-36D1ART-RL  | 3.60       | 1                | MDL   |
| ADM6315-35D1ART-RL7 | 3.50       | 1                | MDK   |
| ADM6315-35D1ART-RL  | 3.50       | 1                | MDK   |
| ADM6315-34D1ART-RL7 | 3.40       | 1                | MDJ   |
| ADM6315-34D1ART-RL  | 3.40       | 1                | MDJ   |
| ADM6315-33D1ART-RL7 | 3.30       | 1                | MDI   |
| ADM6315-33D1ART-RL  | 3.30       | 1                | MDI   |
| ADM6315-32D1ART-RL7 | 3.20       | 1                | MDH   |
| ADM6315-32D1ART-RL  | 3.20       | 1                | MDH   |
| ADM6315-31D1ART-RL7 | 3.08       | 1                | MDG   |
| ADM6315-31D1ART-RL  | 3.08       | 1                | MDG   |
| ADM6315-30D1ART-RL7 | 3.00       | 1                | MDF   |
| ADM6315-30D1ART-RL  | 3.00       | 1                | MDF   |
| ADM6315-29D1ART-RL7 | 2.93       | 1                | MDE   |
| ADM6315-29D1ART-RL  | 2.93       | 1                | MDE   |
| ADM6315-28D1ART-RL7 | 2.80       | 1                | MDD   |
| ADM6315-28D1ART-RL  | 2.80       | 1                | MDD   |
| ADM6315-27D1ART-RL7 | 2.70       | 1                | MDC   |
| ADM6315-27D1ART-RL  | 2.70       | 1                | MDC   |
| ADM6315-26D1ART-RL7 | 2.63       | 1                | MDB   |
| ADM6315-26D1ART-RL  | 2.63       | 1                | MDB   |
| ADM6315-25D1ART-RL7 | 2.50       | 1                | MDA   |
| ADM6315-25D1ART-RL  | 2.50       | 1                | MDA   |

Table II.

| Model*              | Trip-Point | Min Timeout (ms) | Brand |
|---------------------|------------|------------------|-------|
| ADM6315-50D2ART-RL7 | 5.00       | 20               | MEZ   |
| ADM6315-50D2ART-RL  | 5.00       | 20               | MEZ   |
| ADM6315-49D2ART-RL7 | 4.90       | 20               | MEY   |
| ADM6315-49D2ART-RL  | 4.90       | 20               | MEY   |
| ADM6315-48D2ART-RL7 | 4.80       | 20               | MEX   |
| ADM6315-48D2ART-RL  | 4.80       | 20               | MEX   |
| ADM6315-47D2ART-RL7 | 4.70       | 20               | MEW   |
| ADM6315-47D2ART-RL  | 4.70       | 20               | MEW   |
| ADM6315-46D2ART-RL7 | 4.63       | 20               | MEV   |
| ADM6315-46D2ART-RL  | 4.63       | 20               | MEV   |
| ADM6315-45D2ART-RL7 | 4.50       | 20               | MEU   |
| ADM6315-45D2ART-RL  | 4.50       | 20               | MEU   |
| ADM6315-44D2ART-RL7 | 4.39       | 20               | MET   |
| ADM6315-44D2ART-RL  | 4.39       | 20               | MET   |
| ADM6315-43D2ART-RL7 | 4.30       | 20               | MES   |
| ADM6315-43D2ART-RL  | 4.30       | 20               | MES   |
| ADM6315-42D2ART-RL7 | 4.20       | 20               | MER   |
| ADM6315-42D2ART-RL  | 4.20       | 20               | MER   |
| ADM6315-41D2ART-RL7 | 4.10       | 20               | MEQ   |
| ADM6315-41D2ART-RL  | 4.10       | 20               | MEQ   |
| ADM6315-40D2ART-RL7 | 4.00       | 20               | MEP   |
| ADM6315-40D2ART-RL  | 4.00       | 20               | MEP   |
| ADM6315-39D2ART-RL7 | 3.90       | 20               | MEO   |
| ADM6315-39D2ART-RL  | 3.90       | 20               | MEO   |
| ADM6315-38D2ART-RL7 | 3.80       | 20               | MEN   |
| ADM6315-38D2ART-RL  | 3.80       | 20               | MEN   |
| ADM6315-37D2ART-RL7 | 3.70       | 20               | MEM   |
| ADM6315-37D2ART-RL  | 3.70       | 20               | MEM   |
| ADM6315-36D2ART-RL7 | 3.60       | 20               | MEL   |
| ADM6315-36D2ART-RL  | 3.60       | 20               | MEL   |
| ADM6315-35D2ART-RL7 | 3.50       | 20               | MEK   |
| ADM6315-35D2ART-RL  | 3.50       | 20               | MEK   |
| ADM6315-34D2ART-RL7 | 3.40       | 20               | MEJ   |
| ADM6315-34D2ART-RL  | 3.40       | 20               | MEJ   |
| ADM6315-33D2ART-RL7 | 3.30       | 20               | MEI   |
| ADM6315-33D2ART-RL  | 3.30       | 20               | MEI   |
| ADM6315-32D2ART-RL7 | 3.20       | 20               | MEH   |
| ADM6315-32D2ART-RL  | 3.20       | 20               | MEH   |
| ADM6315-31D2ART-RL7 | 3.08       | 20               | MEG   |
| ADM6315-31D2ART-RL  | 3.08       | 20               | MEG   |
| ADM6315-30D2ART-RL7 | 3.00       | 20               | MEF   |
| ADM6315-30D2ART-RL  | 3.00       | 20               | MEF   |
| ADM6315-29D2ART-RL7 | 2.93       | 20               | MEE   |
| ADM6315-29D2ART-RL  | 2.93       | 20               | MEE   |
| ADM6315-28D2ART-RL7 | 2.80       | 20               | MED   |
| ADM6315-28D2ART-RL  | 2.80       | 20               | MED   |
| ADM6315-27D2ART-RL7 | 2.70       | 20               | MEC   |
| ADM6315-27D2ART-RL  | 2.70       | 20               | MEC   |
| ADM6315-26D2ART-RL7 | 2.63       | 20               | MEB   |
| ADM6315-26D2ART-RL  | 2.63       | 20               | MEB   |
| ADM6315-25D2ART-RL7 | 2.50       | 20               | MEA   |
| ADM6315-25D2ART-RL  | 2.50       | 20               | MEA   |

## NOTES

ADM6315-xxxxxxx-RL7 are in reels of 3,000 pieces.

ADM6315-xxxxxxx-RL are in reels of 10,000 pieces.

\*Only available in reels.

Table III.

| Model*                     | Trip-Point  | Min Timeout (ms) | Brand      |
|----------------------------|-------------|------------------|------------|
| ADM6315-50D3ART-RL7        | 5.00        | 140              | MFZ        |
| ADM6315-50D3ART-RL         | 5.00        | 140              | MFZ        |
| ADM6315-49D3ART-RL7        | 4.90        | 140              | MFY        |
| ADM6315-49D3ART-RL         | 4.90        | 140              | MFY        |
| ADM6315-48D3ART-RL7        | 4.80        | 140              | MFY        |
| ADM6315-48D3ART-RL         | 4.80        | 140              | MFY        |
| ADM6315-47D3ART-RL7        | 4.70        | 140              | MFY        |
| ADM6315-47D3ART-RL         | 4.70        | 140              | MFY        |
| ADM6315-46D3ART-RL7        | 4.63        | 140              | MFV        |
| ADM6315-46D3ART-RL         | 4.63        | 140              | MFV        |
| <b>ADM6315-45D3ART-RL7</b> | <b>4.50</b> | <b>140</b>       | <b>MFU</b> |
| <b>ADM6315-45D3ART-RL</b>  | <b>4.50</b> | <b>140</b>       | <b>MFU</b> |
| ADM6315-44D3ART-RL7        | 4.39        | 140              | MFT        |
| ADM6315-44D3ART-RL         | 4.39        | 140              | MFT        |
| ADM6315-43D3ART-RL7        | 4.30        | 140              | MFS        |
| ADM6315-43D3ART-RL         | 4.30        | 140              | MFS        |
| ADM6315-42D3ART-RL7        | 4.20        | 140              | MFR        |
| ADM6315-42D3ART-RL         | 4.20        | 140              | MFR        |
| ADM6315-41D3ART-RL7        | 4.10        | 140              | MFQ        |
| ADM6315-41D3ART-RL         | 4.10        | 140              | MFQ        |
| ADM6315-40D3ART-RL7        | 4.00        | 140              | MFP        |
| ADM6315-40D3ART-RL         | 4.00        | 140              | MFP        |
| ADM6315-39D3ART-RL7        | 3.90        | 140              | MFO        |
| ADM6315-39D3ART-RL         | 3.90        | 140              | MFO        |
| ADM6315-38D3ART-RL7        | 3.80        | 140              | MFN        |
| ADM6315-38D3ART-RL         | 3.80        | 140              | MFN        |
| ADM6315-37D3ART-RL7        | 3.70        | 140              | MFN        |
| ADM6315-37D3ART-RL         | 3.70        | 140              | MFN        |
| ADM6315-36D3ART-RL7        | 3.60        | 140              | MFL        |
| ADM6315-36D3ART-RL         | 3.60        | 140              | MFL        |
| ADM6315-35D3ART-RL7        | 3.50        | 140              | MFK        |
| ADM6315-35D3ART-RL         | 3.50        | 140              | MFK        |
| ADM6315-34D3ART-RL7        | 3.40        | 140              | MFJ        |
| ADM6315-34D3ART-RL         | 3.40        | 140              | MFJ        |
| ADM6315-33D3ART-RL7        | 3.30        | 140              | MFI        |
| ADM6315-33D3ART-RL         | 3.30        | 140              | MFI        |
| ADM6315-32D3ART-RL7        | 3.20        | 140              | MFH        |
| ADM6315-32D3ART-RL         | 3.20        | 140              | MFH        |
| ADM6315-31D3ART-RL7        | 3.08        | 140              | MFG        |
| ADM6315-31D3ART-RL         | 3.08        | 140              | MFG        |
| ADM6315-30D3ART-RL7        | 3.00        | 140              | MFF        |
| ADM6315-30D3ART-RL         | 3.00        | 140              | MFF        |
| ADM6315-29D3ART-RL7        | 2.93        | 140              | MFE        |
| ADM6315-29D3ART-RL         | 2.93        | 140              | MFE        |
| ADM6315-28D3ART-RL7        | 2.80        | 140              | MFD        |
| ADM6315-28D3ART-RL         | 2.80        | 140              | MFD        |
| ADM6315-27D3ART-RL7        | 2.70        | 140              | MFC        |
| ADM6315-27D3ART-RL         | 2.70        | 140              | MFC        |
| ADM6315-26D3ART-RL7        | 2.63        | 140              | MFB        |
| ADM6315-26D3ART-RL         | 2.63        | 140              | MFB        |
| ADM6315-25D3ART-RL7        | 2.50        | 140              | MFA        |
| ADM6315-25D3ART-RL         | 2.50        | 140              | MFA        |

Table IV.

| Model*              | Trip-Point | Min Timeout (ms) | Brand |
|---------------------|------------|------------------|-------|
| ADM6315-50D4ART-RL  | 5.00       | 1120             | MGZ   |
| ADM6315-50D4ART-RL7 | 5.00       | 1120             | MGZ   |
| ADM6315-49D4ART-RL  | 4.90       | 1120             | MGY   |
| ADM6315-49D4ART-RL7 | 4.90       | 1120             | MGY   |
| ADM6315-48D4ART-RL  | 4.80       | 1120             | MGX   |
| ADM6315-48D4ART-RL7 | 4.80       | 1120             | MGX   |
| ADM6315-47D4ART-RL  | 4.70       | 1120             | MGW   |
| ADM6315-47D4ART-RL7 | 4.70       | 1120             | MGW   |
| ADM6315-46D4ART-RL  | 4.63       | 1120             | MGV   |
| ADM6315-46D4ART-RL7 | 4.63       | 1120             | MGV   |
| ADM6315-45D4ART-RL  | 4.50       | 1120             | MGU   |
| ADM6315-45D4ART-RL7 | 4.50       | 1120             | MGU   |
| ADM6315-44D4ART-RL  | 4.39       | 1120             | MGT   |
| ADM6315-44D4ART-RL7 | 4.39       | 1120             | MGT   |
| ADM6315-43D4ART-RL  | 4.30       | 1120             | MGS   |
| ADM6315-43D4ART-RL7 | 4.30       | 1120             | MGS   |
| ADM6315-42D4ART-RL  | 4.20       | 1120             | MGR   |
| ADM6315-42D4ART-RL7 | 4.20       | 1120             | MGR   |
| ADM6315-41D4ART-RL  | 4.10       | 1120             | MGQ   |
| ADM6315-41D4ART-RL7 | 4.10       | 1120             | MGQ   |
| ADM6315-40D4ART-RL  | 4.00       | 1120             | MGP   |
| ADM6315-40D4ART-RL7 | 4.00       | 1120             | MGP   |
| ADM6315-39D4ART-RL  | 3.90       | 1120             | MGO   |
| ADM6315-39D4ART-RL7 | 3.90       | 1120             | MGO   |
| ADM6315-38D4ART-RL  | 3.80       | 1120             | MGN   |
| ADM6315-38D4ART-RL7 | 3.80       | 1120             | MGN   |
| ADM6315-37D4ART-RL  | 3.70       | 1120             | MGM   |
| ADM6315-37D4ART-RL7 | 3.70       | 1120             | MGM   |
| ADM6315-36D4ART-RL  | 3.60       | 1120             | MGL   |
| ADM6315-36D4ART-RL7 | 3.60       | 1120             | MGL   |
| ADM6315-35D4ART-RL  | 3.50       | 1120             | MGK   |
| ADM6315-35D4ART-RL7 | 3.50       | 1120             | MGK   |
| ADM6315-34D4ART-RL  | 3.40       | 1120             | MGJ   |
| ADM6315-34D4ART-RL7 | 3.40       | 1120             | MGJ   |
| ADM6315-33D4ART-RL  | 3.30       | 1120             | MGI   |
| ADM6315-33D4ART-RL7 | 3.30       | 1120             | MGI   |
| ADM6315-32D4ART-RL  | 3.20       | 1120             | MGH   |
| ADM6315-32D4ART-RL7 | 3.20       | 1120             | MGH   |
| ADM6315-31D4ART-RL  | 3.08       | 1120             | MGG   |
| ADM6315-31D4ART-RL7 | 3.08       | 1120             | MGG   |
| ADM6315-30D4ART-RL  | 3.00       | 1120             | MGF   |
| ADM6315-30D4ART-RL7 | 3.00       | 1120             | MGF   |
| ADM6315-29D4ART-RL  | 2.93       | 1120             | MGE   |
| ADM6315-29D4ART-RL7 | 2.93       | 1120             | MGE   |
| ADM6315-28D4ART-RL  | 2.80       | 1120             | MGD   |
| ADM6315-28D4ART-RL7 | 2.80       | 1120             | MGD   |
| ADM6315-27D4ART-RL  | 2.70       | 1120             | MGC   |
| ADM6315-27D4ART-RL7 | 2.70       | 1120             | MGC   |
| ADM6315-26D4ART-RL  | 2.63       | 1120             | MGB   |
| ADM6315-26D4ART-RL7 | 2.63       | 1120             | MGB   |
| ADM6315-25D4ART-RL  | 2.50       | 1120             | MGA   |
| ADM6315-25D4ART-RL7 | 2.50       | 1120             | MGA   |

## NOTES

All parts in bold are ex-stock. Consult factory for availability of orders.

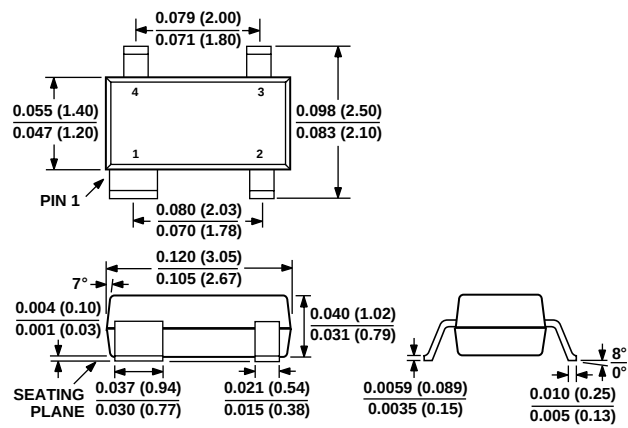
ADM6315-xxxxxxx-RL7 are in reels of 3,000 pieces.

ADM6315-xxxxxxx-RL are in reels of 10,000 pieces.

\*Only available in reels.

OUTLINE DIMENSIONS  
Dimensions shown in inches and (mm).

4-Lead Plastic Surface Mount Package  
(SOT-143)



C3460-8-3/99

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