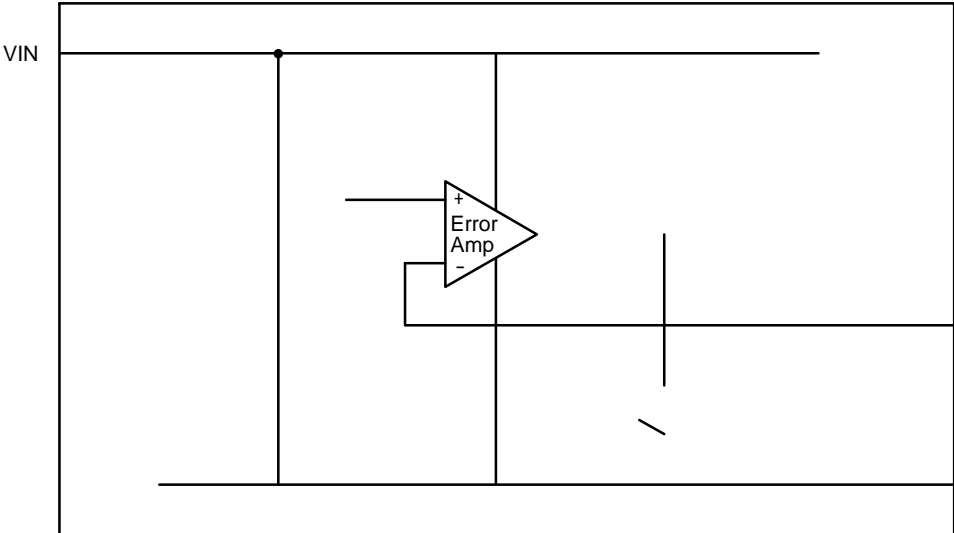




NCV4264-2C





TYPICAL CHARACTERISTIC CURVES – 5 V VERSION

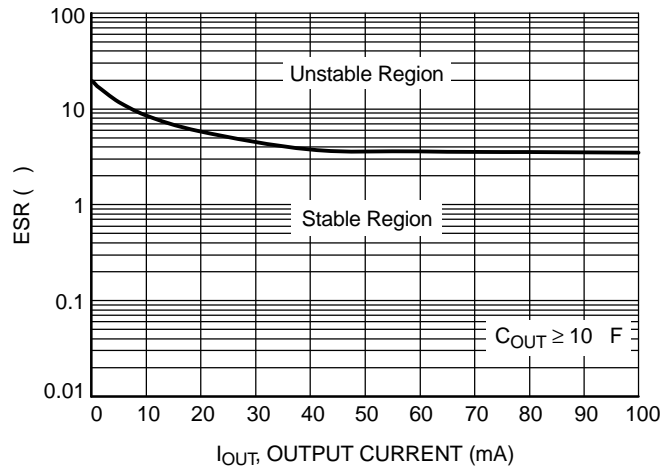


Figure 3. Output Stability with Output Capacitor ESR (5.0 V Version)

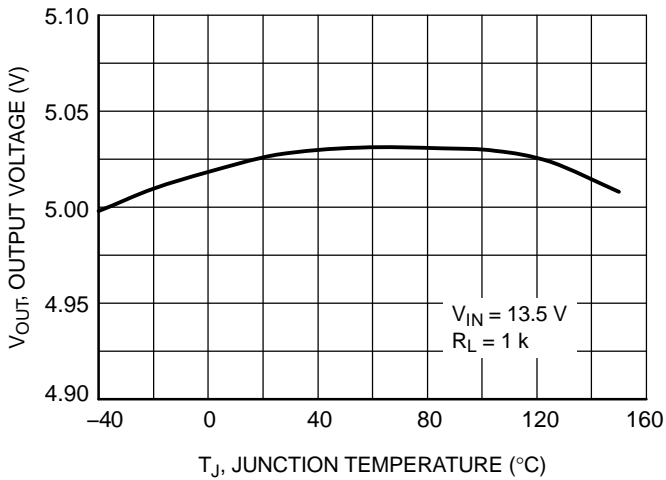


Figure 4. Output Voltage vs. Junction Temperature (5.0 V Version)

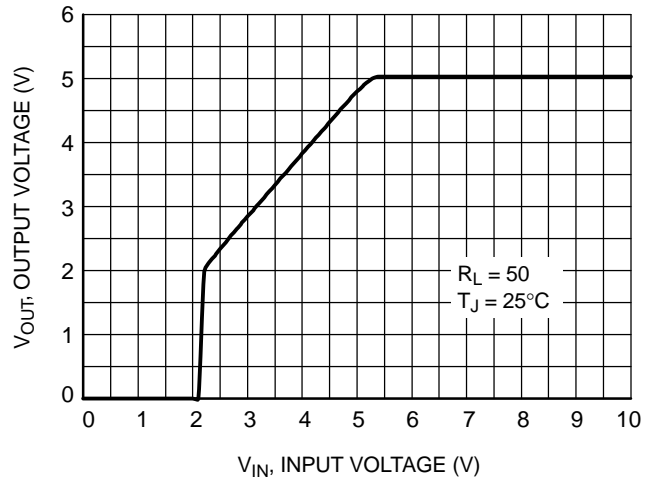


Figure 5. Output Voltage vs. Input Voltage (5.0 V Version)

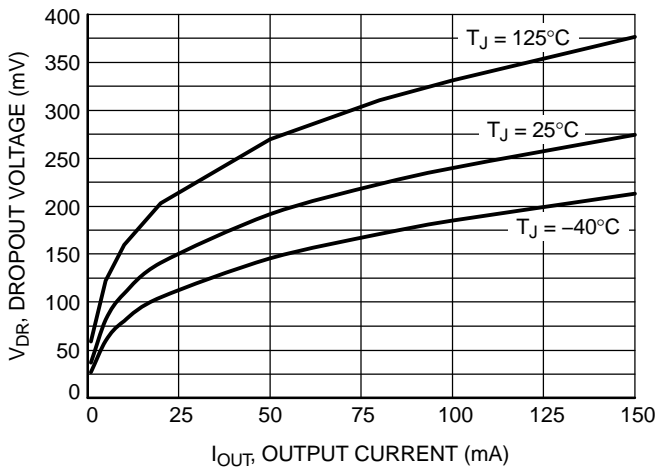


Figure 6. Dropout Voltage vs. Output Current (only 5.0 V Version)

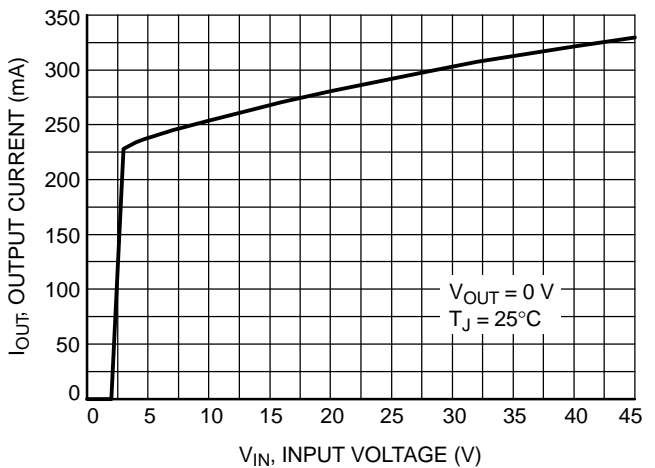
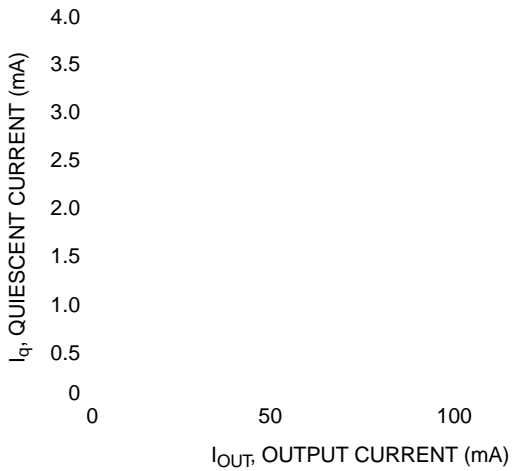


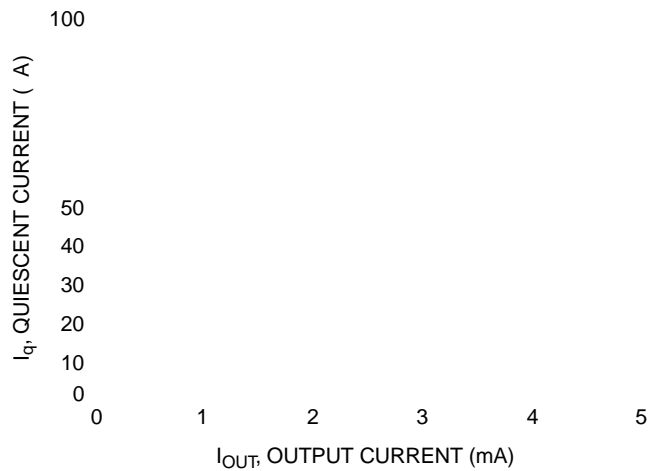
Figure 7. Maximum Output Current vs. Input Voltage (5.0 V Version)

# NCV4264-2C

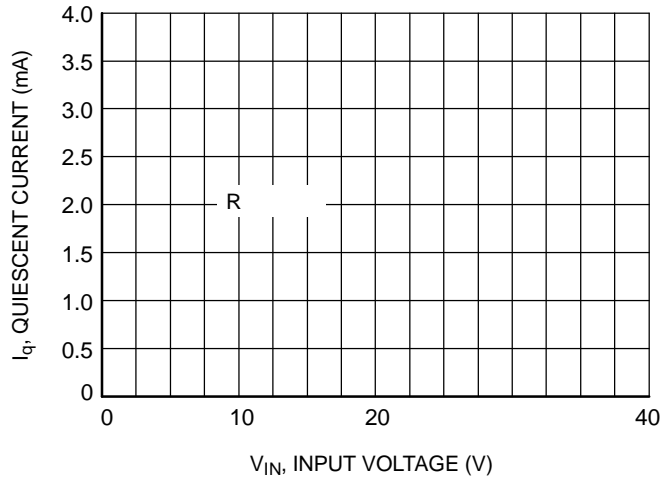
## TYPICAL CHARACTERISTIC CURVES – 5 V VERSION (continued)



**Figure 8. Quiescent Current vs. Output Current (5.0 V Version) (High Load)**



**Figure 9. Quiescent Current vs. Output Current (5.0 V Version) (Low Load)**



**Figure 10. Quiescent Current vs. Input Voltage (5.0 V Version)**

TYPICAL CHARACTERISTIC CURVES - 3.3 V VERSION

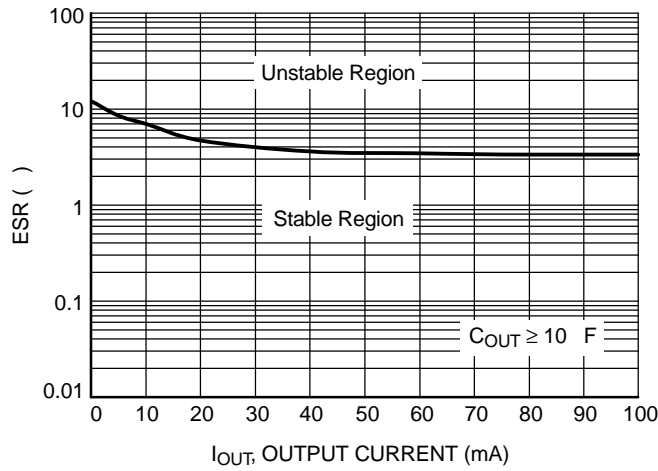


Figure 11. Output Stability with Output Capacitor ESR (3.3 V Version)

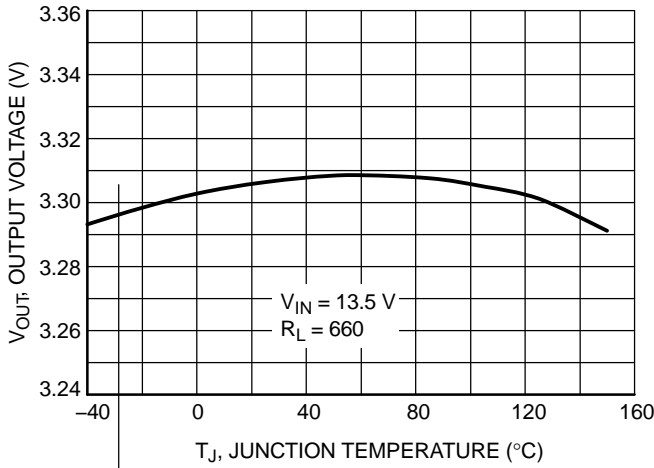


Figure 12. Output Voltage vs. Junction Temperature (3.3 V Version)

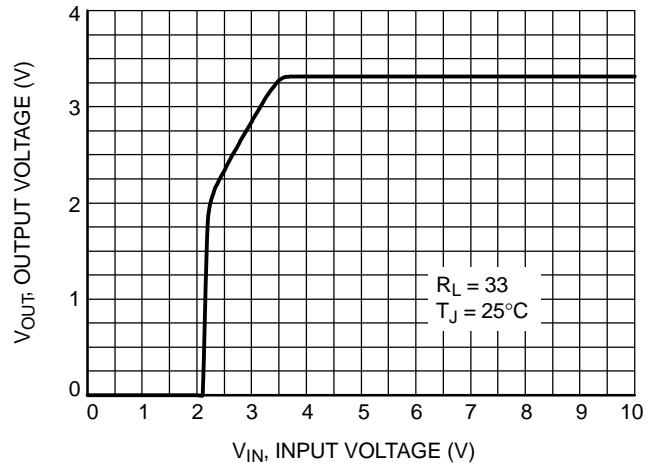


Figure 13. Output Voltage vs. Input Voltage (3.3 V Version)

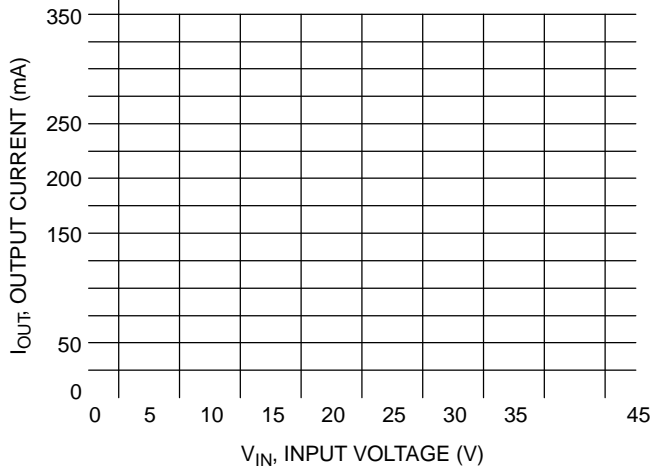


Figure 14. Maximum Output Current vs. Input Voltage (3.3 V Version)

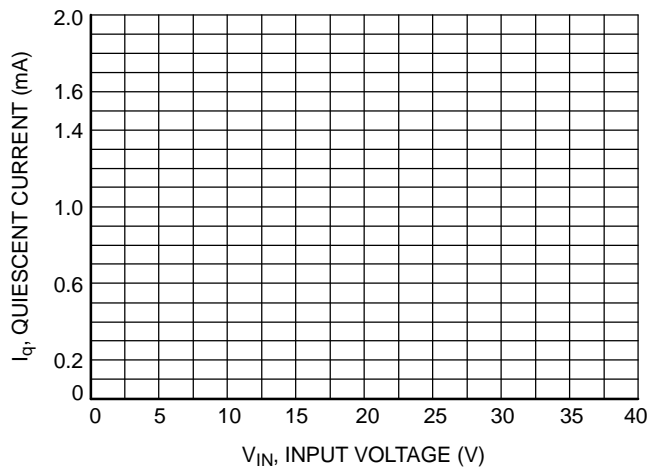


Figure 15. Quiescent Current vs. Input Voltage (3.3 V Version)

**NCV4264-2C**

**TYPICAL CHARACTERISTIC CURVES -**

# NCV4264-2C

## Circuit Description

## Calculating Power Dissipation in a Single Output Linear Regulator

±

$$P_{D(max)} = [V_{IN(max)} - V_{OUT(min)}] * I_{OUT(max)} + V_{IN(max)} * I_q \quad (\text{eq. 1})$$

## Regulator

$$P_{JA} = \frac{(150^\circ\text{C} - T_A)}{P_D} \quad (\text{eq. 2})$$

## Regulator Stability Considerations

## Heat Sinks

$$R_{JA} = R_{JC} + R_{CS} + R_{SA}$$

≤

≅

≤



# NCV4264-2C

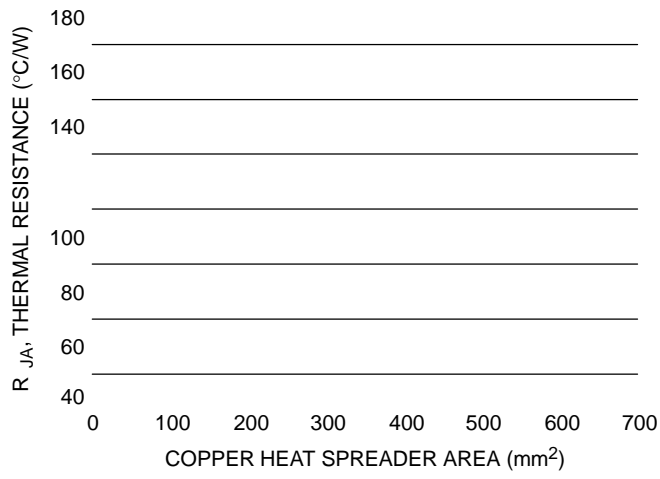
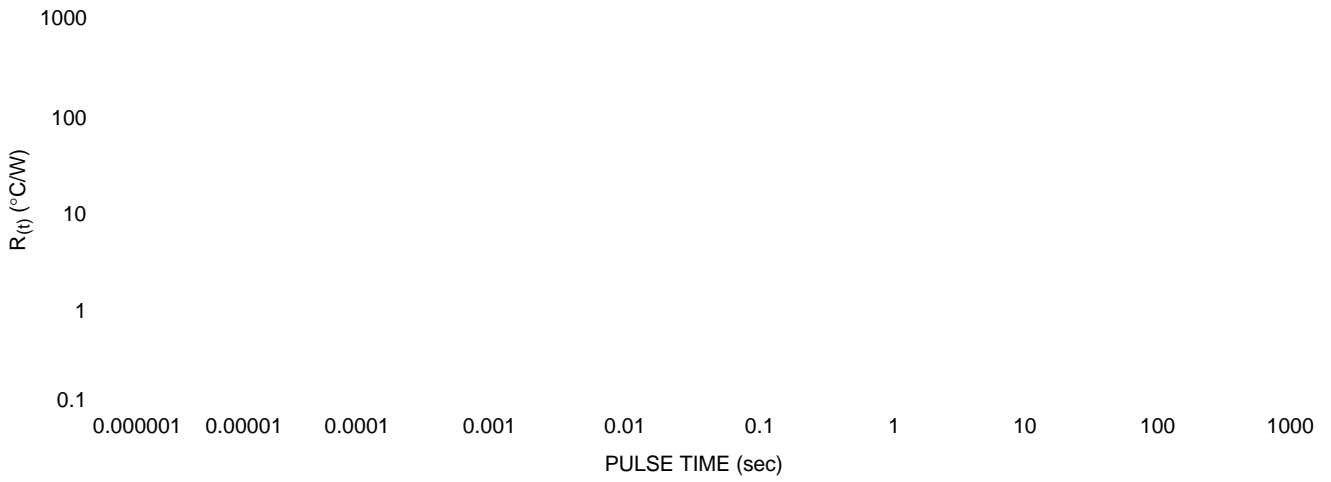


Figure 18. R<sub>θJA</sub> vs. Copper Spreader Area

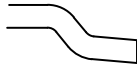
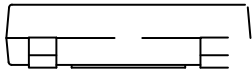




SCALE 1:1

**SOT-223 (TO-261)**  
CASE 318E 04  
ISSUE R

DATE 02 OCT 2018



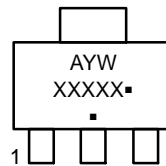
	MILLIMETERS		
DIM	MIN.	NOM.	MAX.
A	1.50	1.63	1.75
A1	0.02	0.06	0.10
b			
D	6.30	6.50	6.70
E	3.30	3.50	3.70
e	2.30 BSC		

**SOT-223 (TO-261)**  
**CASE 318E 04**  
**ISSUE R**

DATE 02 OCT 2018

- |   |  |  |  |  |
|---|--|--|--|--|
| LE 1:<br>IN 1. BA E<br>2. C LLEC<br>3. EMI E<br>4. C LLEC | LE 2:<br>IN 1. AN DE<br>2. CA H DE<br>3. NC<br>4. CA H DE        | LE 3:<br>IN 1. GA E<br>2. DAIN<br>3. CE<br>4. DAIN         | LE 4:<br>IN 1. CE<br>2. DAIN<br>3. GA E<br>4. DAIN | LE 5:<br>IN 1. DAIN<br>2. GA E<br>3. CE<br>4. GA E         |
| LE 6:<br>IN 1. E<br>2. IN<br>3.<br>4. IN                  | LE 7:<br>IN 1. AN DE 1<br>2. CA H DE<br>3. AN DE 2<br>4. CA H DE | LE 8:<br>CANCELLED   | LE 9:<br>IN 1. IN<br>2. GAND<br>3. L G<br>4. GAND  | LE 10:<br>IN 1. CA H DE<br>2. AN DE<br>3. GA E<br>4. AN DE |
| LE 11:<br>IN 1. M 1<br>2. M 2<br>3. GA E<br>4. M 2        | LE 12:<br>IN 1. IN<br>2.<br>3. NG<br>4.                          | LE 13:<br>IN 1. GA E<br>2. C LLEC<br>3. EMI E<br>4. C LLEC |  |  |

**GENERIC  
MARKING DIAGRAM\***



- A = Assembly Location
- Y = Year
- W = Work Week
- XXXXX = Specific Device Code
- = Pb Free Package

(Note: Microdot may be in either location)

\*This information is generic. Please refer to device data sheet for actual part marking. Pb Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

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