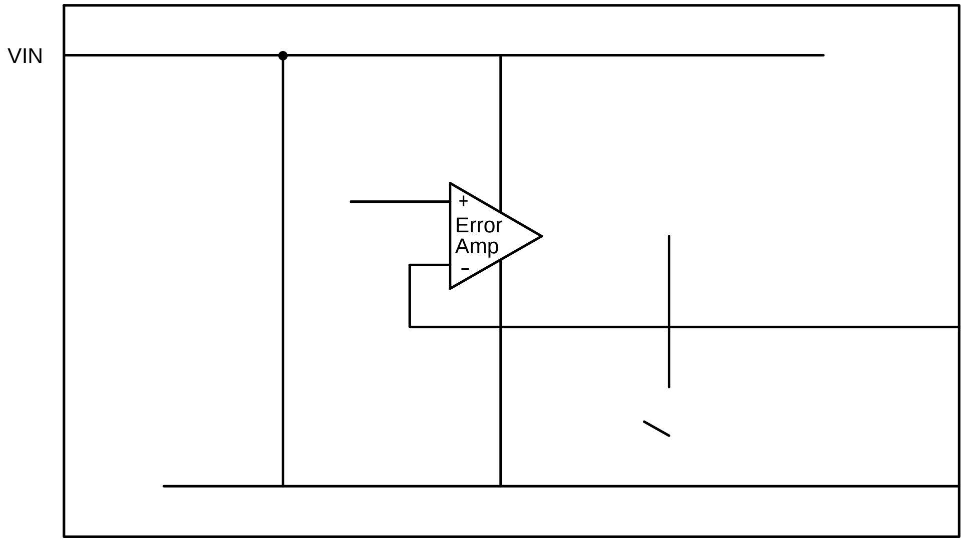

VIN
+
Error
Amp
-

TYPICAL CHARACTERISTIC CURVES − 5 V VERSION

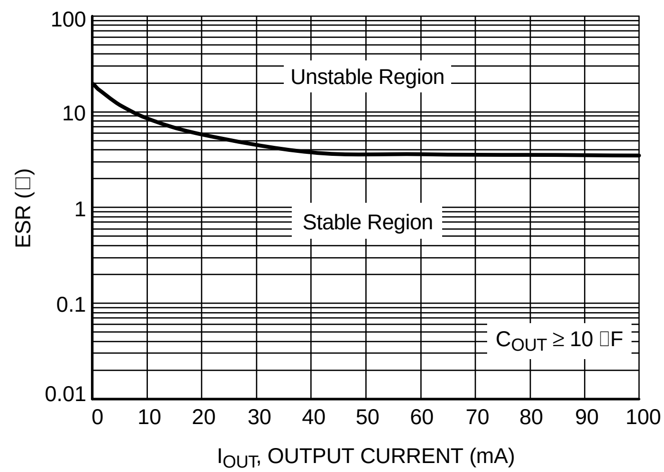


Figure 3. Output Stability with Output Capacitor ESR (5.0 V Version)

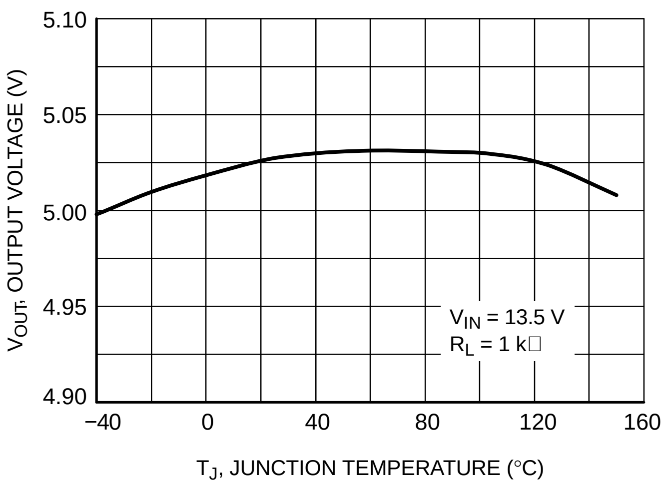


Figure 4. Output Voltage vs. Junction Temperature (5.0 V Version)

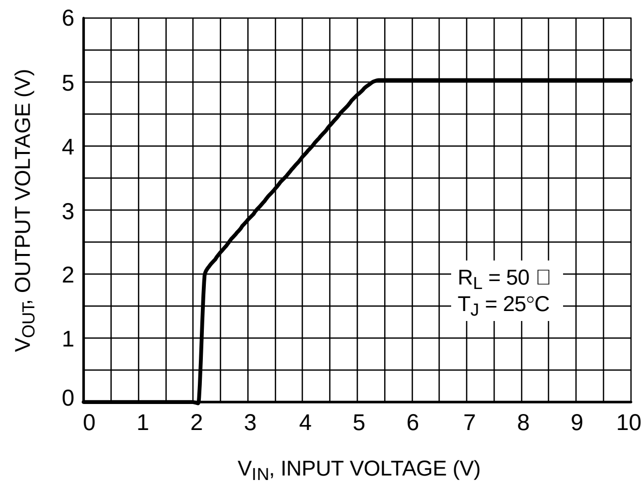


Figure 5. Output Voltage vs. Input Voltage (5.0 V Version)

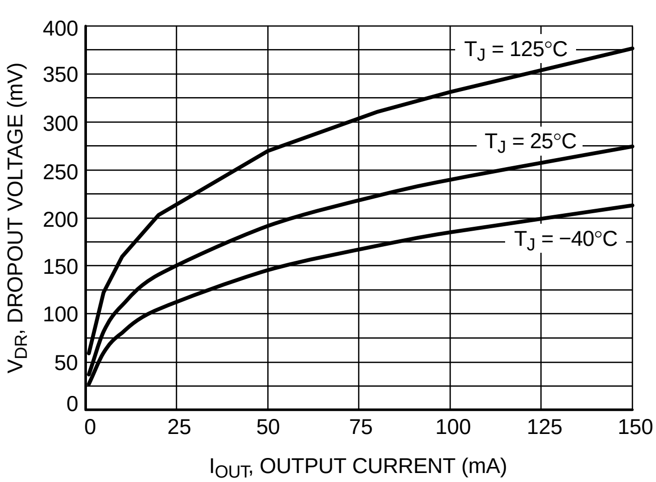


Figure 6. Dropout Voltage vs. Output Current (only 5.0 V Version)

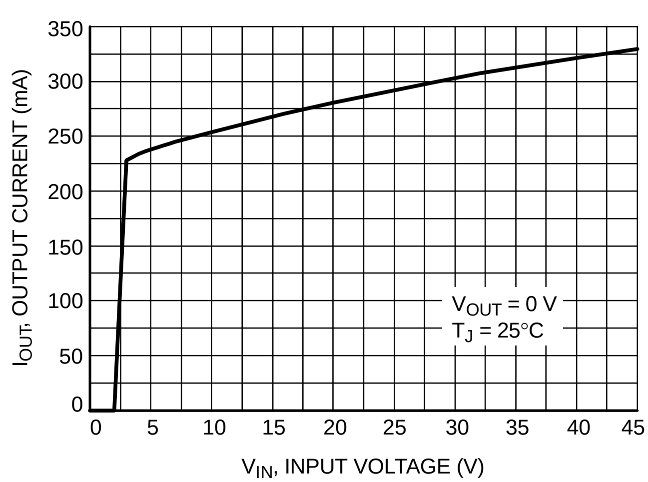


Figure 7. Maximum Output Current vs. Input Voltage (5.0 V Version)

TYPICAL CHARACTERISTIC CURVES − 5 V VERSION (continued)

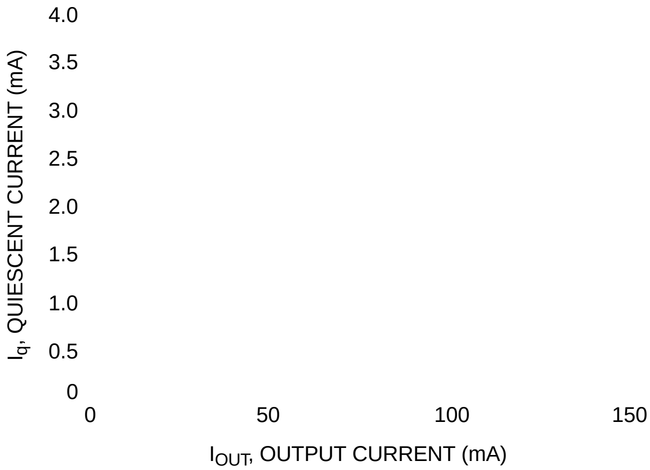


Figure 8. Quiescent Current vs. Output Current (5.0 V Version) (High Load)

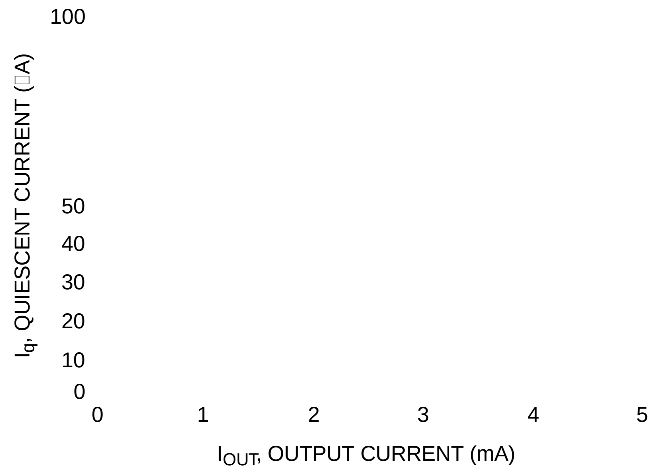


Figure 9. Quiescent Current vs. Output Current (5.0 V Version) (Low Load)

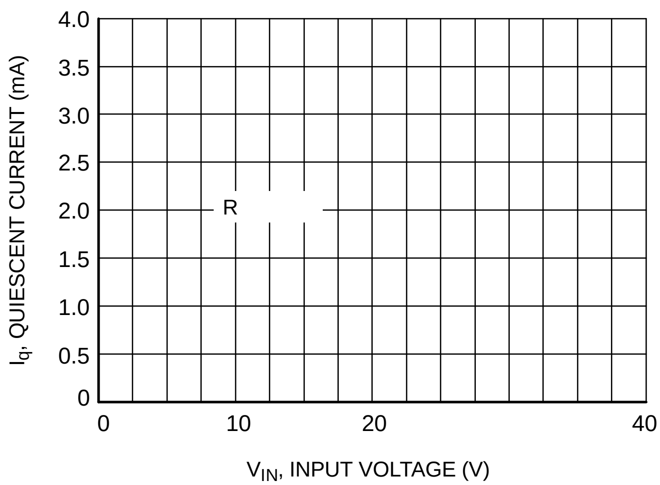


Figure 10. Quiescent Current vs. Input Voltage (5.0 V Version)

TYPICAL CHARACTERISTIC CURVES − 3.3 V VERSION

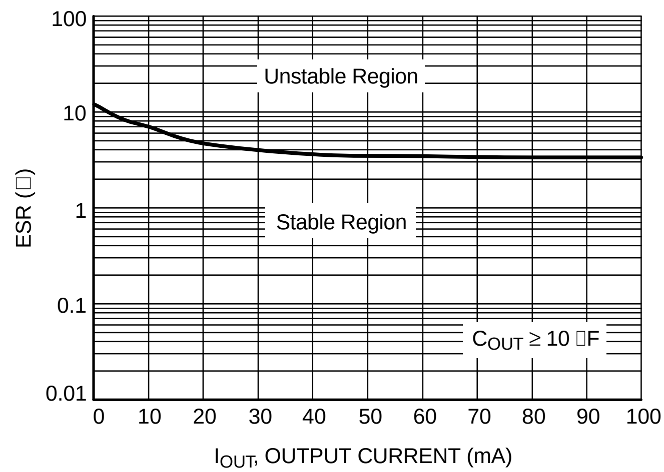


Figure 11. Output Stability with Output Capacitor ESR (3.3 V Version)

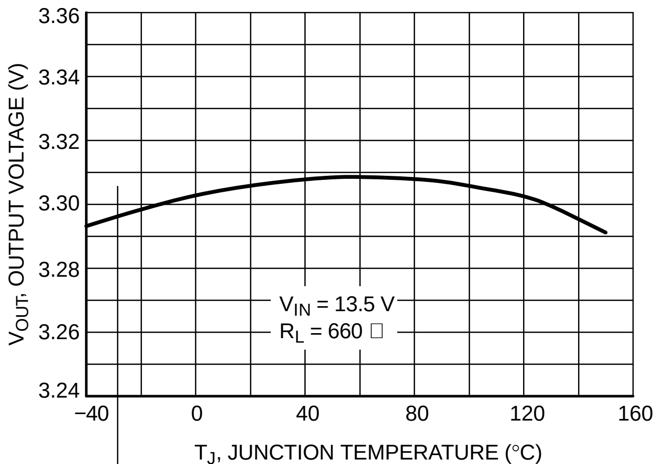


Figure 12. Output Voltage vs. Junction Temperature (3.3 V Version)

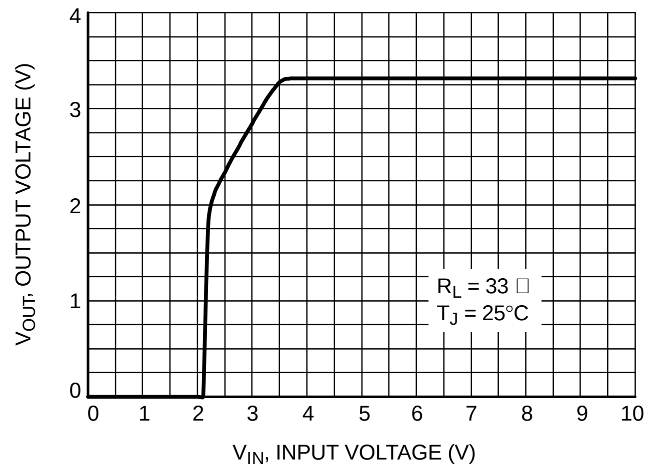


Figure 13. Output Voltage vs. Input Voltage (3.3 V Version)

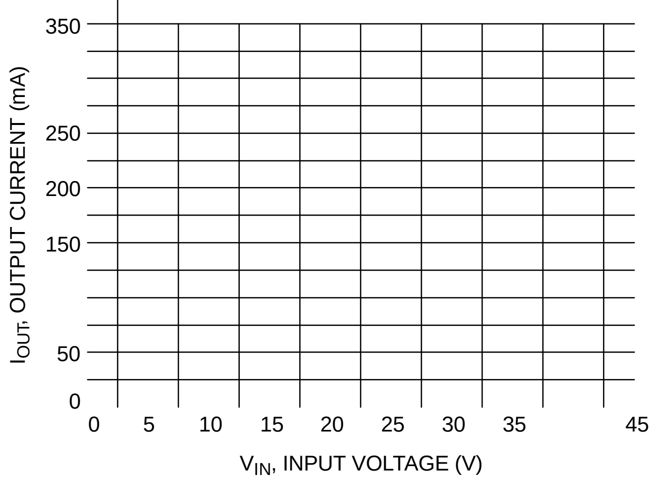


Figure 14. Maximum Output Current vs. Input Voltage (3.3 V Version)

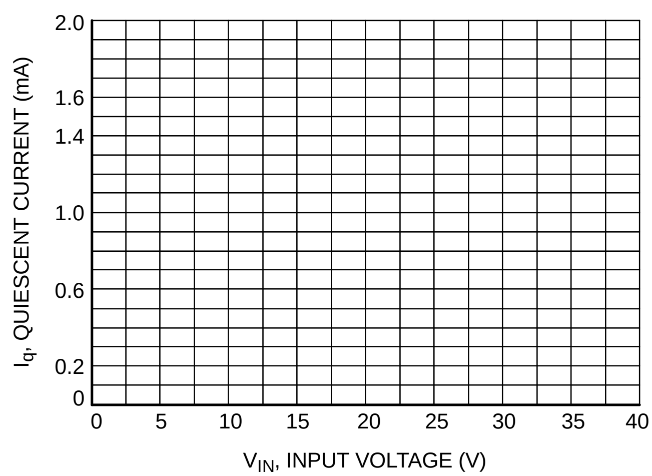


Figure 15. Quiescent Current vs. Input Voltage (3.3 V Version)

TYPICAL CHARACTERISTIC CURVES −

Circuit Description

−

±

Regulator

−

Regulator Stability Considerations

≥

≤ ≤

Calculating Power Dissipation in a Single Output Linear Regulator

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

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

∘

Heat Sinks

$$R_{\theta JA} = R_{\theta JC} + R_{\theta CS} + R_{\theta SA}$$ SAStani 0 10 9

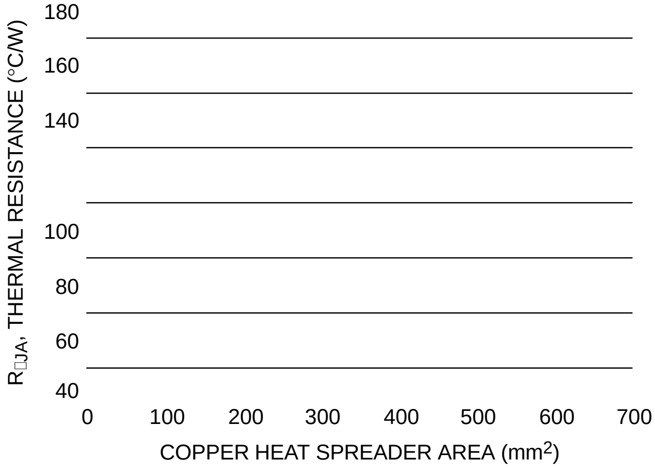
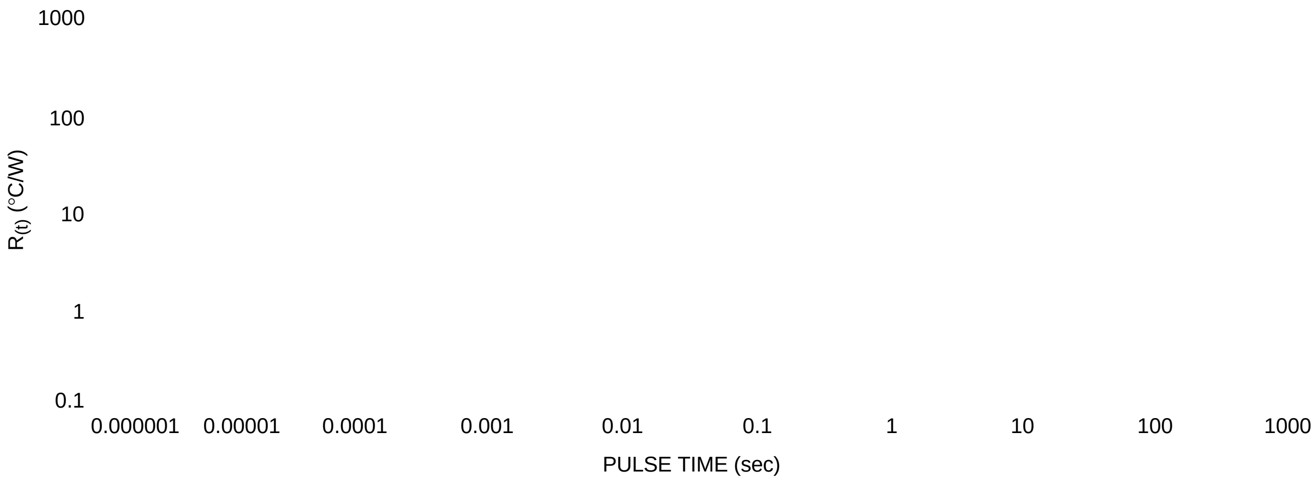
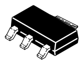


Figure 18. $R_{\theta JA}$ vs. Copper Spreader Area

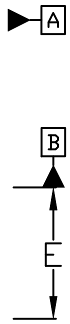


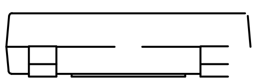


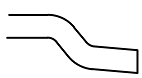
SCALE 1:1

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:
IN 1. BA E
2. C LLEC
3. EMI E
4. C LLEC

LE 2:
IN 1. AN DE
2. CA H DE
3. NC
4. CA H DE

LE 3:
IN 1. GA E
2. D AIN
3. CE
4. D AIN

LE 4:
IN 1. CE
2. D AIN
3. GA E
4. D AIN

LE 5:
IN 1. D AIN
2. GA E
3. CE
4. GA E

LE 6:
IN 1. E N
2. IN
3.
4. IN

LE 7:
IN 1. AN DE 1
2. CA H DE
3. AN DE 2
4. CA H DE

LE 8:
CANCELLED

LE 9:
IN 1. IN
2. G ND
3. L GIC
4. G ND

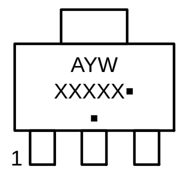
LE 10:
IN 1. CA H DE
2. AN DE
3. GA E
4. AN DE

LE 11:
IN 1. M 1
2. M 2
3. GA E
4. M 2

LE 12:
IN 1. IN
2.
3. NC
4.

LE 13:
IN 1. GA E
2. C LLEC
3. EMI E
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.