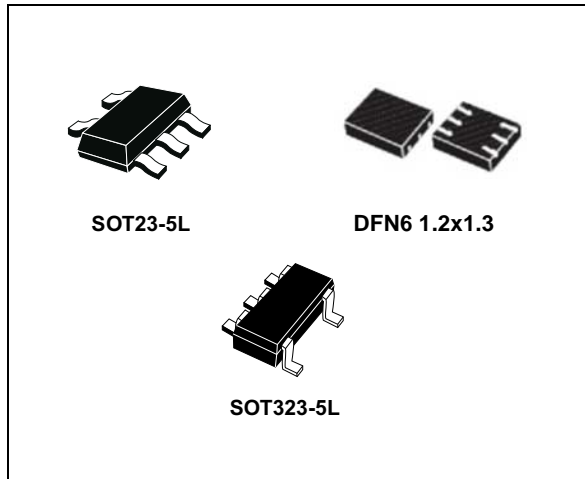


## 300 mA low quiescent current very low noise LDO (automotive for SOT23-5L package)

Datasheet - production data



### Applications

- Mobile phones
- Portable consumer and industrial devices
- Cordless phones and similar battery-powered systems
- Automotive P.O.L.
- A.D.A.S.

### Description

The LDK130 low drop voltage regulator provides 300 mA of maximum current from an input supply voltage in the range of 1.9 V to 5.5 V, with a typical dropout voltage of 100 mV.

It is stabilized with a ceramic capacitor on the output.

The very low drop voltage, low quiescent current and low-noise features make it suitable for low-power battery-powered applications.

An enable logic control function puts the LDK130 in shutdown mode allowing a total current consumption lower than 1  $\mu$ A.

The device also includes short-circuit constant current limiting and thermal protection.

### Features



- AEC-Q100 qualified (automotive grade 1, SOT23-5L package)
- Input voltage from 1.9 to 5.5 V
- Very low-dropout voltage (100 mV typ. at 100 mA load)
- Low quiescent current (typ. 30  $\mu$ A, 1  $\mu$ A in OFF mode)
- Very low noise
- Output voltage tolerance:  $\pm 2.0\%$  at 25  $^{\circ}$ C
- 300 mA guaranteed output current
- Wide range of fixed output voltages available on request: from 0.8 V to 3.5 V with 100 mV step
- Adjustable version: from 0.8 V to  $V_{IN} - V_{drop}$
- Logic-controlled electronic shutdown
- Compatible with ceramic capacitor  $C_{OUT} = 1 \mu$ F
- Internal current and thermal limit
- Available in SOT23-5L, SOT323-5L and DFN6 1.2x1.3 packages
- Temperature range: -40  $^{\circ}$ C to 125  $^{\circ}$ C

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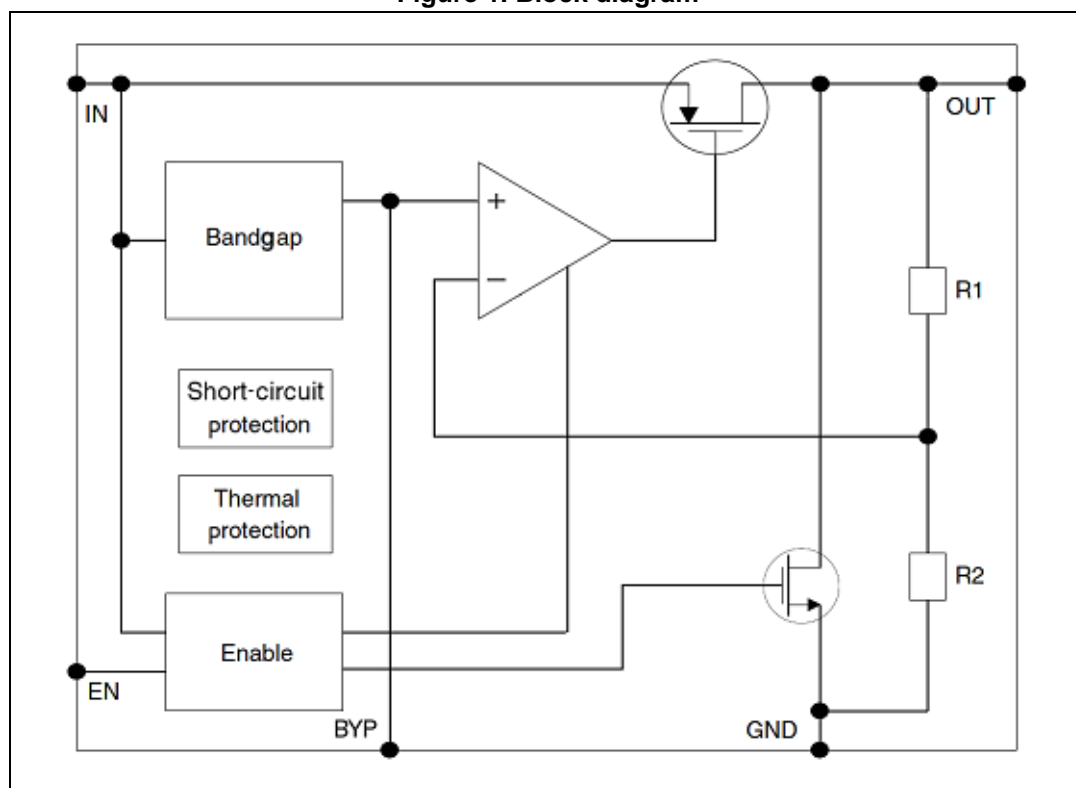
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# 1 Block diagram

Figure 1. Block diagram



## 2 Pin configuration

Figure 2. Pin connections (top view)

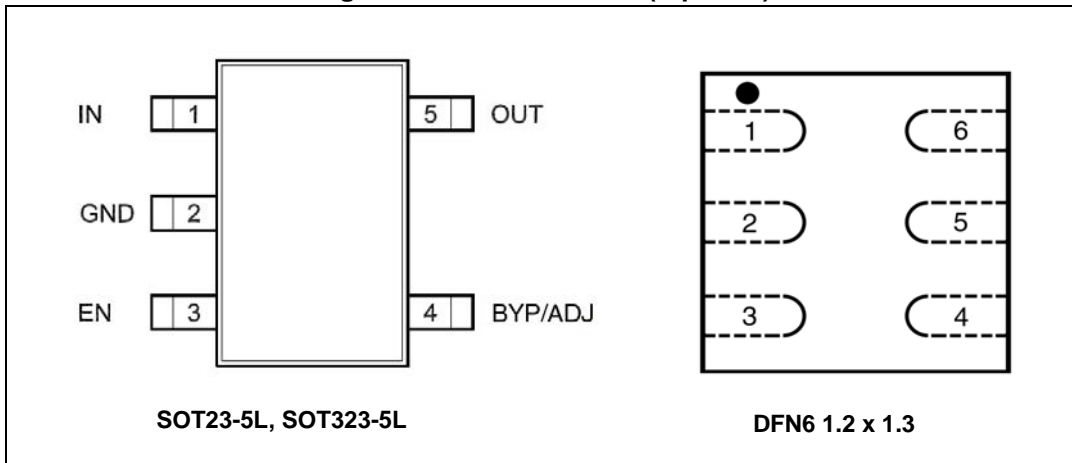


Table 1. Pin description (SOT23-5L, SOT323-5L)

| Pin              |      | Symbol                  | Function   |
|------------------|------|-------------------------|--|
| SOT23/<br>SOT323 | DFN6 |                         |  |
| 1                | 6    | IN                      | Input voltage of the LDO   |
| 2                | 2    | GND                     | Common ground  |
| 3                | 4    | EN                      | Enable pin logic input: low = shutdown, high = active              |
| 4                | 3    | BYP <sup>(1)</sup> /ADJ | Bypass capacitor on fixed versions, adjustable pin on ADJ versions |
| 5                | 1    | OUT                     | Output voltage of the LDO  |
| -                | 5    | N/C                     | Not connected. This pin should be connected to GND                 |

1. Bypass capacitor for noise reduction on fixed version is optional, if not used the relevant pin must be left floating with no routing on the board.

### 3 Typical application

Figure 3. Typical application circuits for fixed version

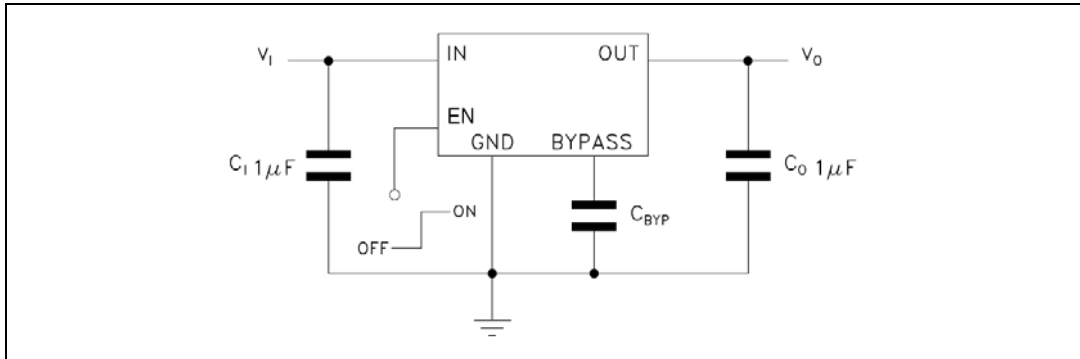
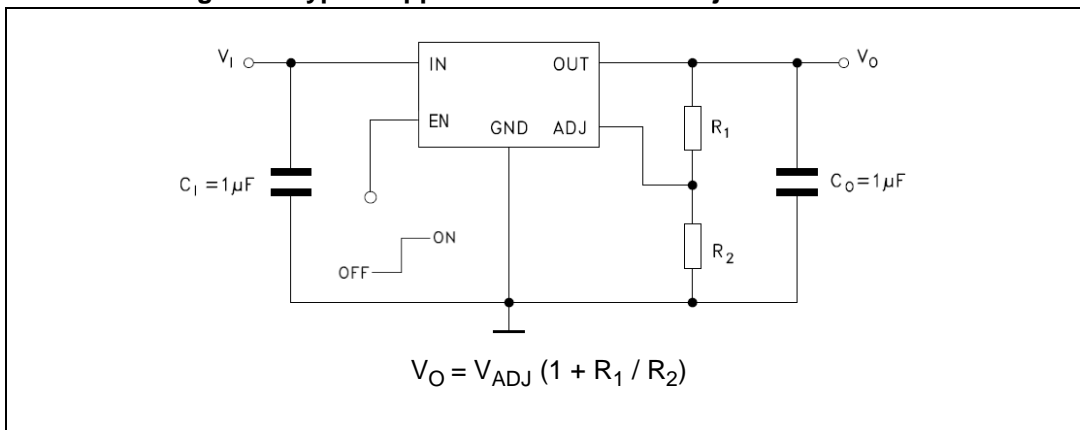


Figure 4. Typical application circuits for adjustable version



## 4 Maximum ratings

**Table 2. Absolute maximum ratings**

| Symbol        | Parameter                            | Value                | Unit |
|---------------|--------------------------------------|----------------------|------|
| $V_{IN}$      | DC input voltage                     | - 0.3 to 7           | V    |
| $V_{OUT}$     | DC output voltage                    | - 0.3 to $V_I + 0.3$ | V    |
| $V_{EN}$      | Enable input voltage                 | - 0.3 to $V_I + 0.3$ | V    |
| $V_{BYP/ADJ}$ | ADJ/bypass pin voltage               | 2                    | V    |
| $I_{OUT}$     | Output current                       | Internally limited   | mA   |
| $P_D$         | Power dissipation                    | Internally limited   | mW   |
| $T_{STG}$     | Storage temperature range            | - 65 to 150          | °C   |
| $T_{OP}$      | Operating junction temperature range | - 40 to 125          | °C   |

*Note:* Absolute maximum ratings are those values beyond which damage to the device may occur. Functional operation under these conditions is not implied. All values are referred to GND.

**Table 3. Thermal data**

| Symbol     | Parameter                           | SOT23-5L | SOT323-5L | DFN6 | Unit |
|------------|-------------------------------------|----------|-----------|------|------|
| $R_{thJA}$ | Thermal resistance junction ambient | 160      | 246       | 237  | °C/W |
| $R_{thJC}$ | Thermal resistance junction case    | 68       | 134       | 104  | °C/W |



## 5 Electrical characteristics

$T_J = 25\text{ °C}$ ,  $V_{IN} = V_{OUT(NOM)} + 1\text{ V}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$ ,  $I_{OUT} = 1\text{ mA}$ ,  $V_{EN} = V_{IN}$ , unless otherwise specified.

**Table 4. Electrical characteristics for LDK130 (fixed version)**

| Symbol           | Parameter                      | Test conditions   | Min. | Typ.  | Max. | Unit                         |
|------------------|--------------------------------|---|------|-------|------|------------------------------|
| $V_{IN}$         | Operating input voltage        | -   | 1.9  | -     | 5.5  | V                            |
| $V_{OUT}$        | $V_{OUT}$ accuracy             | $I_{OUT} = 1\text{ mA}$ , $T_J = 25\text{ °C}$  | -2.0 | -     | 2.0  | %                            |
|                  |                                | $I_{OUT} = 1\text{ mA}$ , $-40\text{ °C} < T_J < 125\text{ °C}$   | -3.0 | -     | 3.0  | %                            |
| $\Delta V_{OUT}$ | Static line regulation         | $V_{OUT} + 1\text{ V} \leq V_{IN} \leq 5.5\text{ V}$ , $I_{OUT} = 1\text{ mA}$  | -    | 0.05  | -    | %/V                          |
| $\Delta V_{OUT}$ | Static load regulation         | $I_{OUT} = 1\text{ mA}$ to 300 mA   | -    | 0.006 | -    | %/mA                         |
| $V_{DROP}$       | Dropout voltage <sup>(1)</sup> | $I_{OUT} = 100\text{ mA}$ , $V_{OUT} = 2.5\text{ V}$  | -    | 100   | -    | mV                           |
|                  |                                | $I_{OUT} = 300\text{ mA}$ , $V_{OUT} = 2.5\text{ V}$<br>$40\text{ °C} < T_J < 125\text{ °C}$  | -    | 200   | 400  |                              |
| $e_N$            | Output noise voltage           | 10 Hz to 100 kHz, $I_{OUT} = 10\text{ mA}$ ,<br>$V_{OUT} = 2.5\text{ V}$ , $C_{BYP} = 10\text{ nF}$                                     | -    | 51    | -    | $\mu\text{V}_{RMS}/\text{V}$ |
| SVR              | Supply voltage rejection       | $V_{IN} = V_{OUTNOM} + 0.5\text{ V} \pm V_{RIPPLE}$<br>$V_{RIPPLE} = 0.1\text{ V}$ freq. = 120 Hz to 10 kHz<br>$I_{OUT} = 10\text{ mA}$ | -    | 55    | -    | dB                           |
| $I_Q$            | Quiescent current              | $I_{OUT} = 0\text{ mA}$ , $-40\text{ °C} < T_J < 125\text{ °C}$   | -    | 30    | 60   | $\mu\text{A}$                |
|                  |                                | $I_{OUT} = 300\text{ mA}$ , $-40\text{ °C} < T_J < 125\text{ °C}$   | -    | 70    | 120  |                              |
|                  |                                | $V_{IN}$ input current in OFF mode: $V_{EN} = \text{GND}$   | -    | -     | 1    |                              |
| $I_{SC}$         | Short-circuit current          | $R_L = 0$   | -    | 450   | -    | mA                           |
| $V_{EN}$         | Enable input logic low         | $V_{IN} = 1.9\text{ V}$ to $5.5\text{ V}$ , $-40\text{ °C} < T_J < 125\text{ °C}$   | -    | -     | 0.4  | V                            |
|                  | Enable input logic high        | $V_{IN} = 1.9\text{ V}$ to $5.5\text{ V}$ , $-40\text{ °C} < T_J < 125\text{ °C}$   | 1.2  | -     |      |                              |
| $I_{EN}$         | Enable pin input current       | $V_{SHDN} = V_{IN}$   | -    | -     | 100  | nA                           |
| $T_{SHDN}$       | Thermal shutdown               | -   | -    | 160   | -    | $^{\circ}\text{C}$           |
|                  | Hysteresis                     | -   | -    | 20    | -    |                              |
| $C_{OUT}$        | Output capacitor               | Capacitance (see <a href="#">Section 6: Typical performance characteristics</a> )   | 1    | -     | 22   | $\mu\text{F}$                |

1. Dropout voltage is the input-to-output voltage difference at which the output voltage is 100 mV below its nominal value.

$T_J = 25\text{ °C}$ ,  $V_{IN} = V_{OUT(NOM)} + 1\text{ V}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$ ,  $I_{OUT} = 1\text{ mA}$ ,  $V_{EN} = V_{IN}$ , unless otherwise specified.

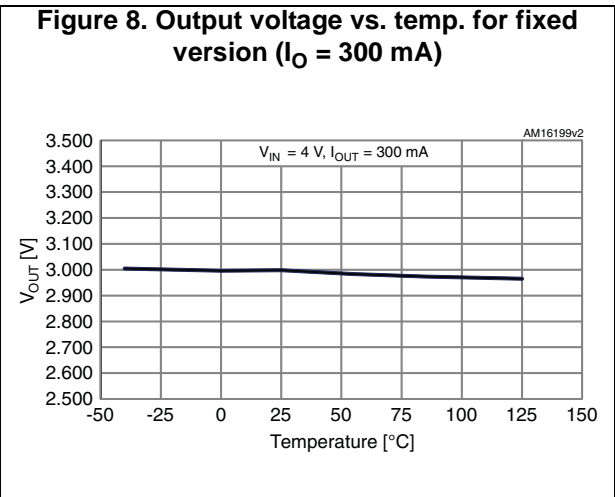
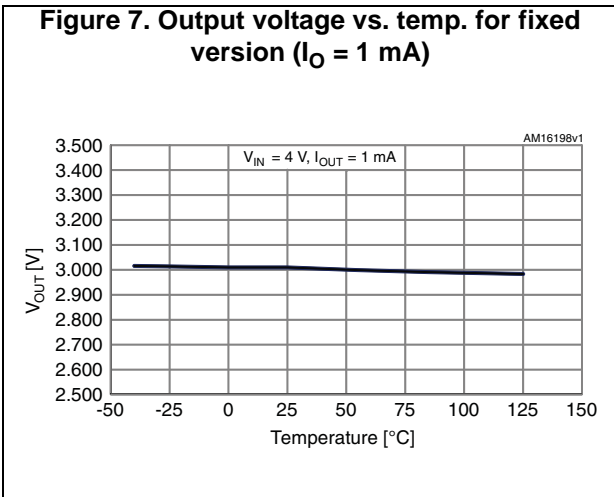
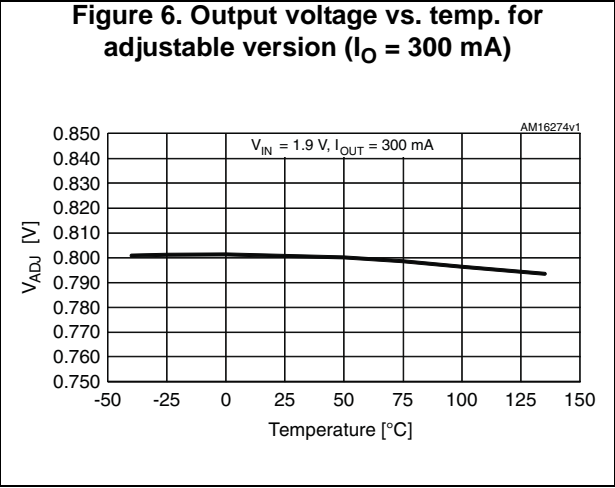
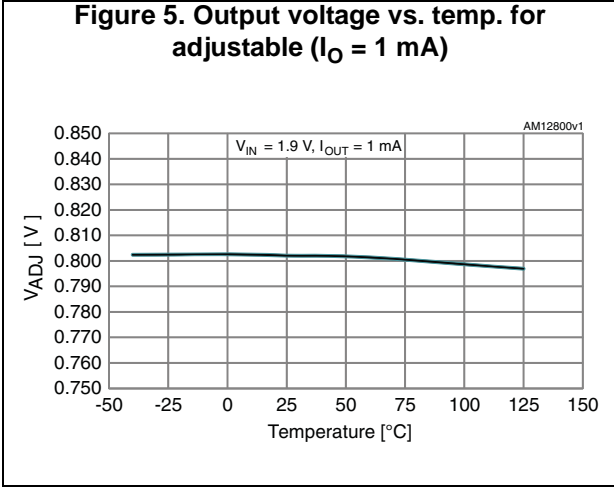
**Table 5. Electrical characteristics for LDK130 (adjustable version)**

| Symbol           | Parameter                      | Test conditions   | Min. | Typ.  | Max. | Unit                         |
|------------------|--------------------------------|---|------|-------|------|------------------------------|
| $V_{IN}$         | Operating input voltage        |   | 1.9  | -     | 5.5  | V                            |
| $V_{ADJ}$        | $V_{ADJ}$ accuracy             | $I_{OUT} = 1\text{ mA}$ , $T_J = 25\text{ °C}$  | 784  | 800   | 816  | mV                           |
|                  |                                | $I_{OUT} = 1\text{ mA}$ , $-40\text{ °C} < T_J < 125\text{ °C}$   | -3.0 |       | 3.0  | %                            |
| $\Delta V_{OUT}$ | Static line regulation         | $V_{OUT} + 1\text{ V} \leq V_{IN} \leq 5.5\text{ V}$ , $I_{OUT} = 1\text{ mA}$  | -    | 0.05  | -    | %/V                          |
| $\Delta V_{OUT}$ | Static load regulation         | $I_{OUT} = 1\text{ mA}$ to 300 mA   | -    | 0.006 | -    | %/mA                         |
| $V_{DROP}$       | Dropout voltage <sup>(1)</sup> | $I_{OUT} = 100\text{ mA}$ , $V_{OUT} = 2.5\text{ V}$  | -    | 100   | -    | mV                           |
|                  |                                | $I_{OUT} = 300\text{ mA}$ , $V_{OUT} = 2.5\text{ V}$<br>$40\text{ °C} < T_J < 125\text{ °C}$  | -    | 200   | 400  |                              |
| $e_N$            | Output noise voltage           | 10 Hz to 100 kHz, $I_{OUT} = 10\text{ mA}$  | -    | 130   | -    | $\mu\text{V}_{RMS}/\text{V}$ |
| $I_{ADJ}$        | Adjust pin current             | -   | -    |       | 1    | $\mu\text{A}$                |
| SVR              | Supply voltage rejection       | $V_{IN} = V_{OUTNOM} + 0.5\text{ V} \pm V_{RIPPLE}$<br>$V_{RIPPLE} = 0.1\text{ V}$ freq. = 120 Hz to 10 kHz<br>$I_{OUT} = 10\text{ mA}$ | -    | 55    |      | dB                           |
| $I_Q$            | Quiescent current              | $I_{OUT} = 0\text{ mA}$ , $-40\text{ °C} < T_J < 125\text{ °C}$   | -    | 30    | 60   | $\mu\text{A}$                |
|                  |                                | $I_{OUT} = 300\text{ mA}$ , $-40\text{ °C} < T_J < 125\text{ °C}$   | -    | 70    | 120  |                              |
|                  |                                | $V_{IN}$ input current in OFF mode: $V_{EN} = \text{GND}$   | -    | -     | 1    |                              |
| $I_{SC}$         | Short-circuit current          | $R_L = 0$   | -    | 450   | -    | mA                           |
| $V_{EN}$         | Enable input logic low         | $V_{IN} = 1.9\text{ V}$ to 5.5 V, $-40\text{ °C} < T_J < 125\text{ °C}$   | -    | -     | 0.4  | V                            |
|                  | Enable input logic high        | $V_{IN} = 1.9\text{ V}$ to 5.5 V, $-40\text{ °C} < T_J < 125\text{ °C}$   | 1.2  | -     | -    |                              |
| $I_{EN}$         | Enable pin input current       | $V_{SHDN} = V_{IN}$   | -    |       | 100  | nA                           |
| $T_{SHDN}$       | Thermal shutdown               | -   | -    | 160   | -    | $^{\circ}\text{C}$           |
|                  | Hysteresis                     | -   | -    | 20    | -    |                              |
| $C_{OUT}$        | Output capacitor               | Capacitance (see <a href="#">Section 6: Typical performance characteristics</a> )   | 1    |       | 22   | $\mu\text{F}$                |

1. Dropout voltage is the input-to-output voltage difference at which the output voltage is 100 mV below its nominal value.

## 6 Typical performance characteristics

$C_{IN} = C_{OUT} = 1 \mu F$ ,  $V_{EN}$  to  $V_{IN}$ , unless otherwise specified.



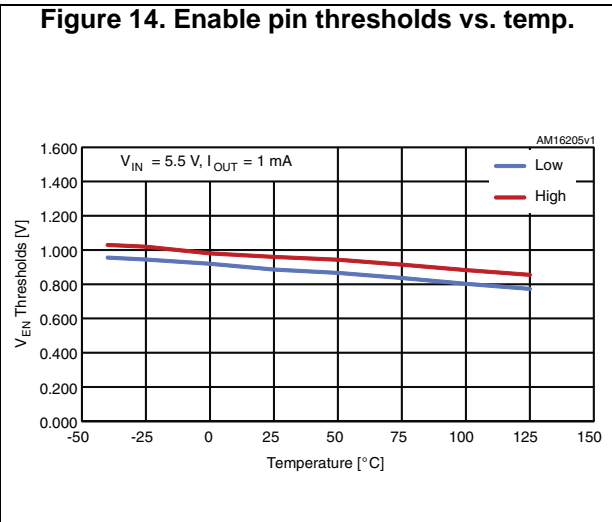
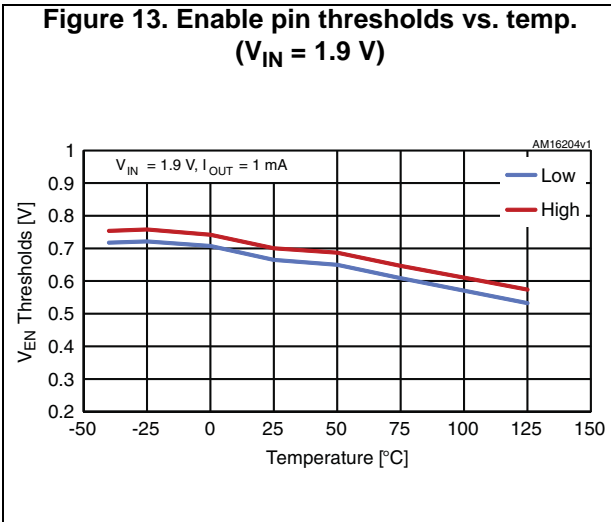
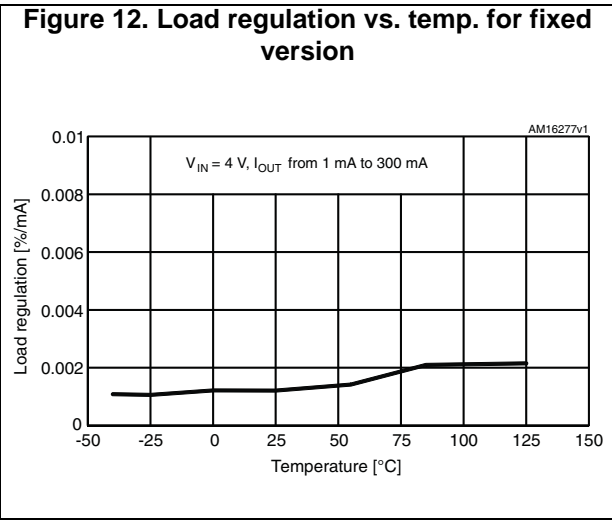
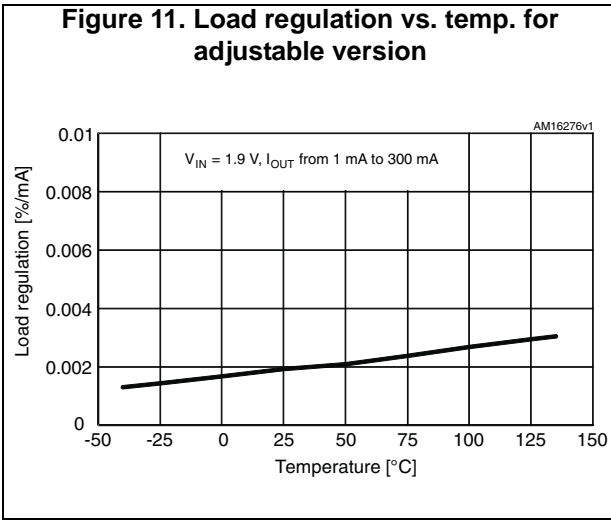
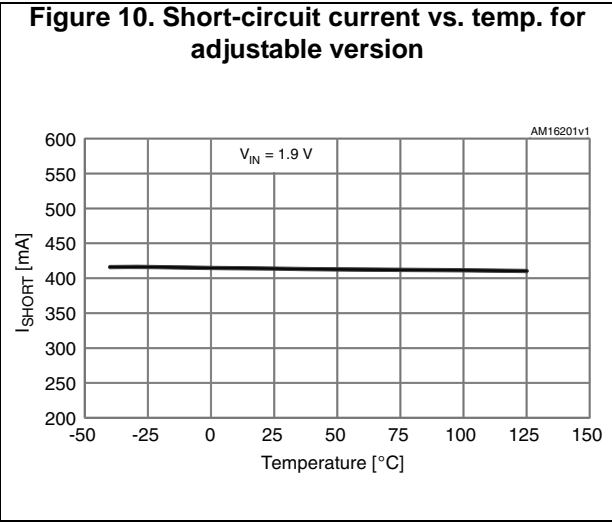
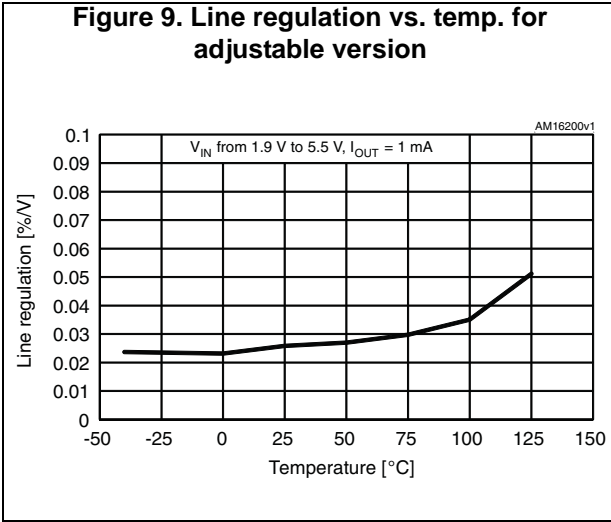


Figure 15. Quiescent current vs. temp. for adjustable version ( $I_O = 0$  mA)

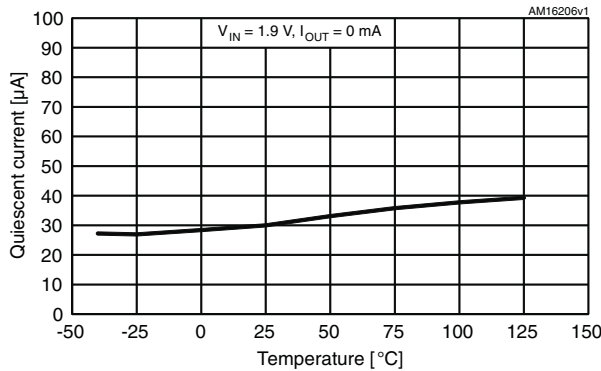


Figure 16. Quiescent current vs. temp. for adjustable version ( $I_O = 300$  mA)

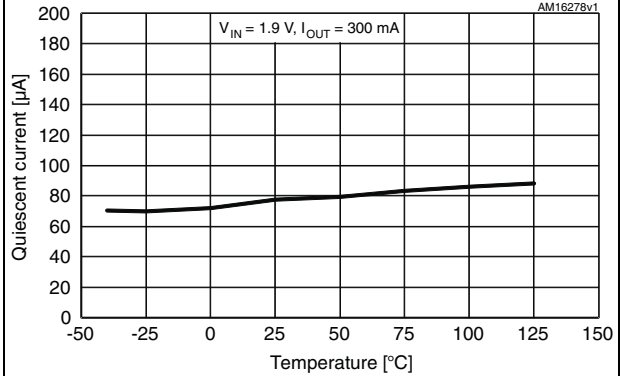


Figure 17. Quiescent current vs. temp. for fixed version ( $I_O = 0$  mA)

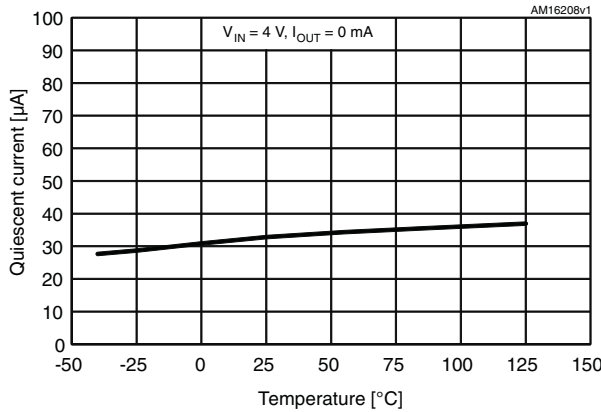


Figure 18. Quiescent current vs. temp. for fixed version ( $I_O = 300$  mA)

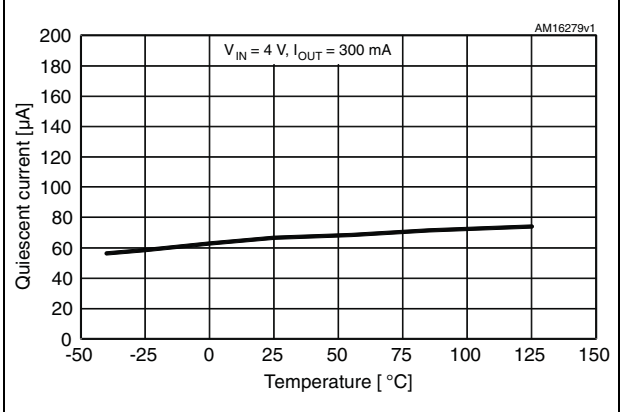


Figure 19. Shutdown current vs. temperature

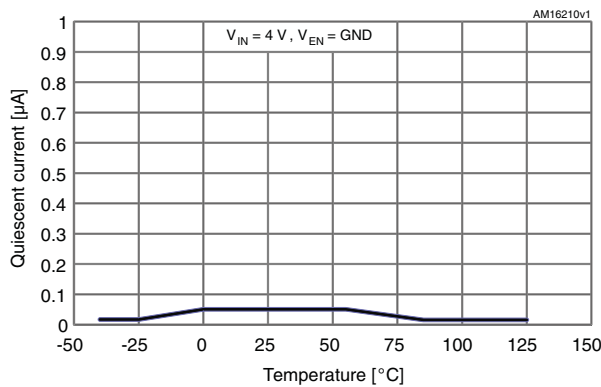
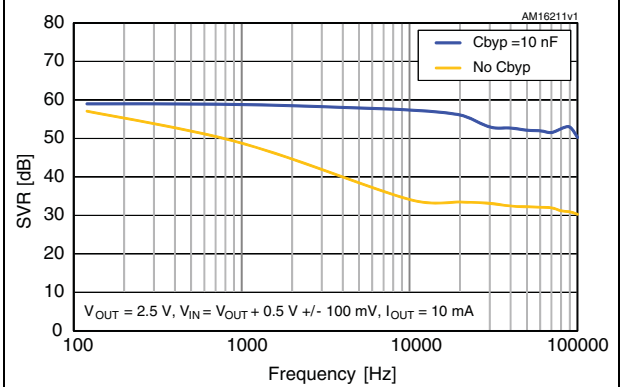


Figure 20. SVR vs. frequency ( $V_O = 2.5$  V)



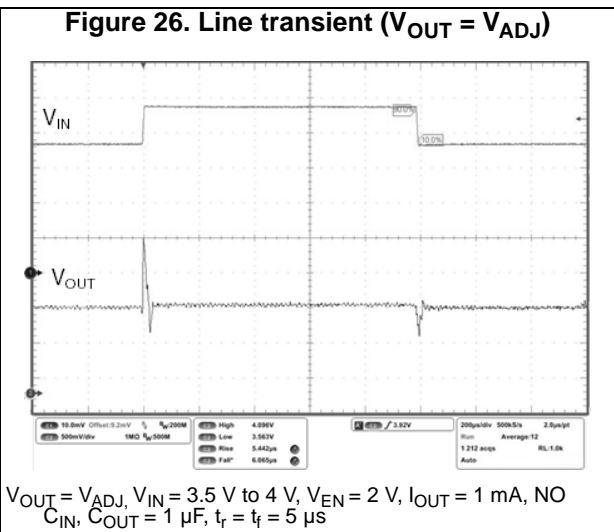
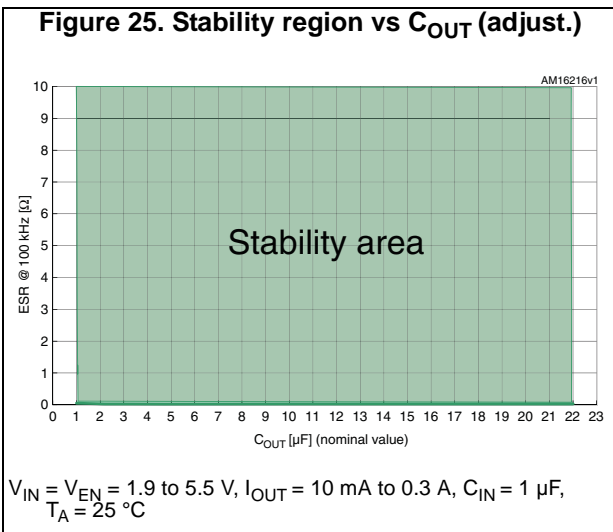
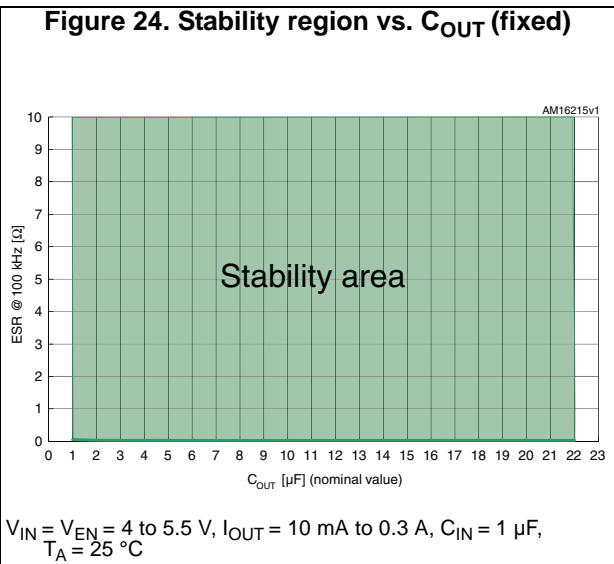
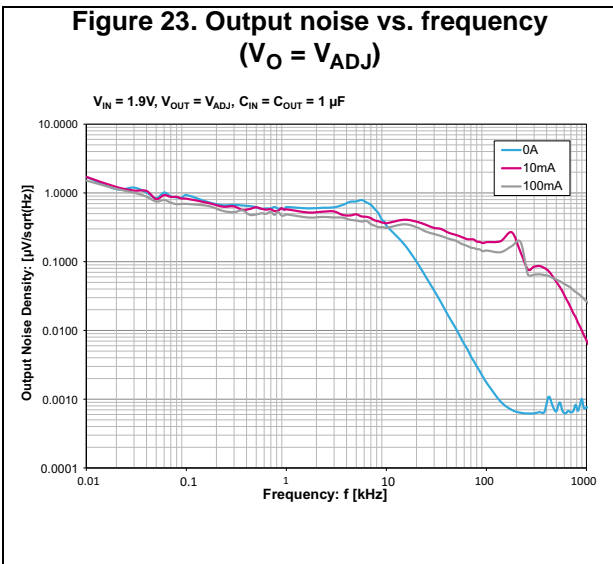
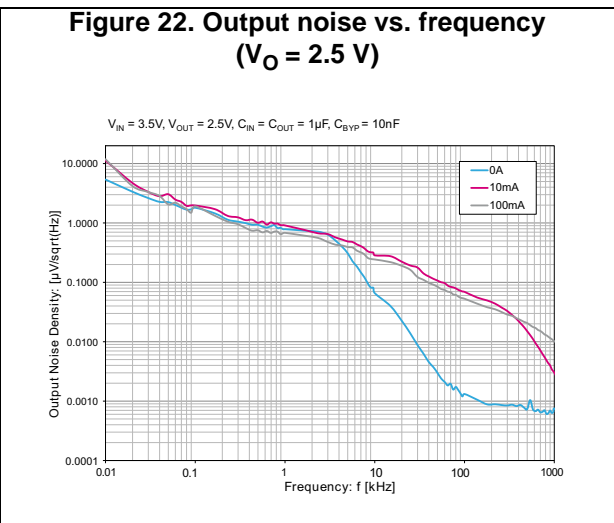
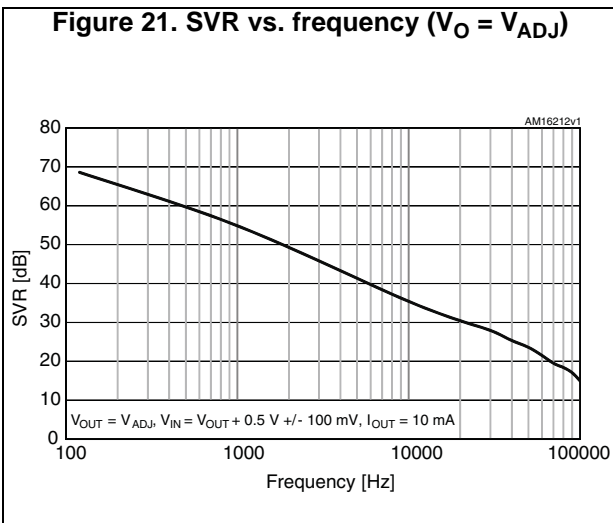
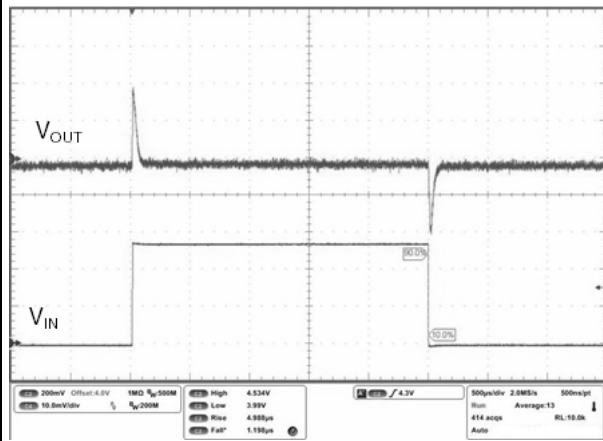
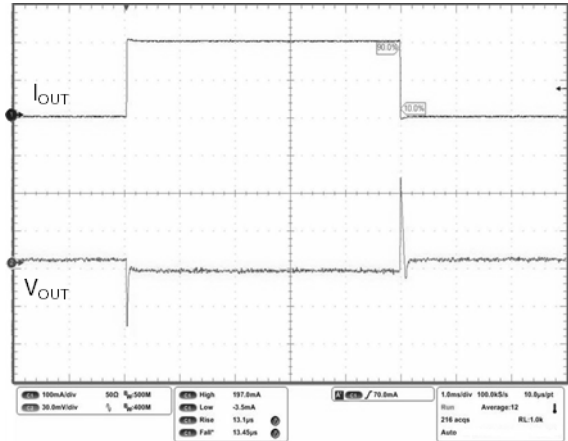


Figure 27. Line transient ( $V_{OUT} = 3\text{ V}$ )



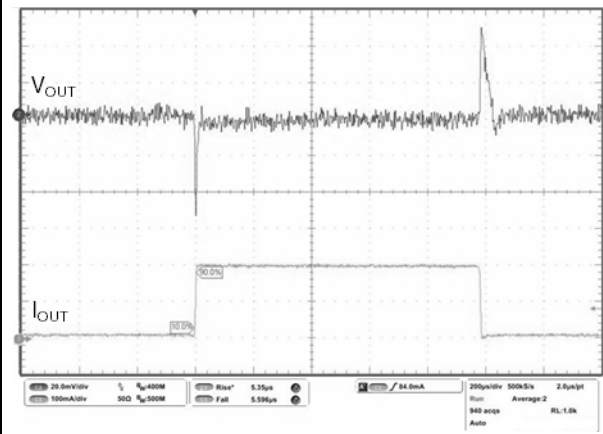
$V_{OUT} = 3\text{ V}$ ,  $V_{IN} = 4\text{ V}$  to  $4.5\text{ V}$ ,  $V_{EN} = 2\text{ V}$ ,  $I_{OUT} = 1\text{ mA}$ , NO  $C_{IN}$ ,  $C_{OUT} = 1\text{ }\mu\text{F}$ ,  $t_r = t_f = 5\text{ }\mu\text{s}$

Figure 28. Load transient ( $V_{OUT} = 3\text{ V}$ )



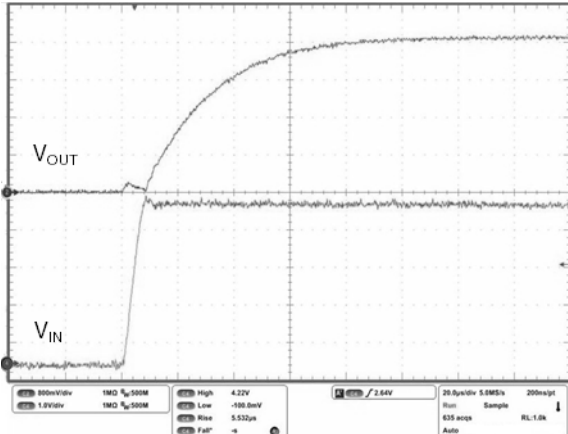
$V_{OUT} = 3\text{ V}$ ,  $V_{IN} = V_{EN} = 3.5\text{ V}$ ,  $I_{OUT} = 1\text{ mA}$  to  $200\text{ mA}$ ,  $C_{OUT} = 1\text{ }\mu\text{F}$ ,  $t_r = t_f = 5\text{ }\mu\text{s}$

Figure 29. Load transient ( $V_{OUT} = V_{ADJ}$ )



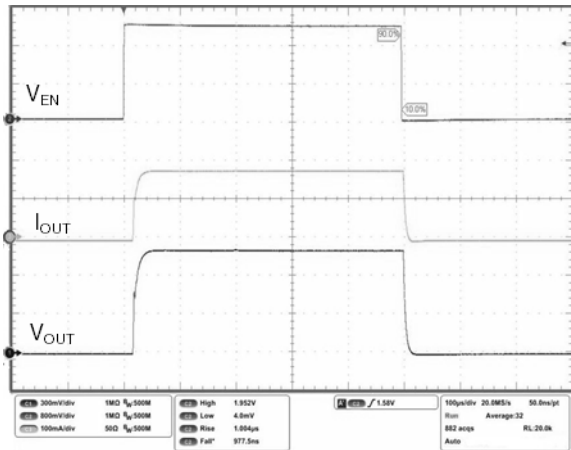
$V_{OUT} = V_{ADJ}$ ,  $V_{IN} = V_{EN} = 3.5\text{ V}$ ,  $I_{OUT} = 1\text{ mA}$  to  $200\text{ mA}$ ,  $C_{OUT} = 1\text{ }\mu\text{F}$ ,  $t_r = t_f = 5\text{ }\mu\text{s}$

Figure 30. Startup transient



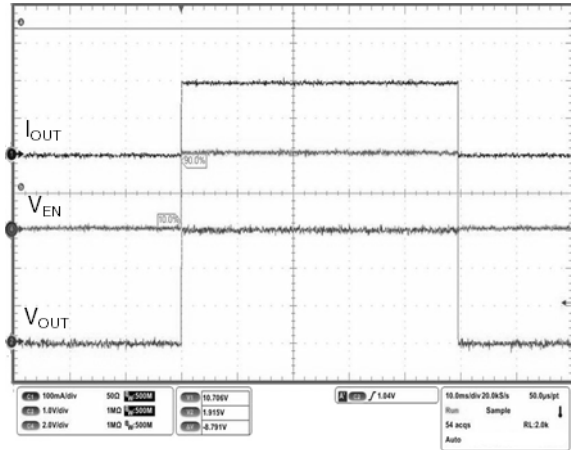
$V_{OUT} = 3\text{ V}$ ,  $V_{IN} = V_{EN} = 0$  to  $4.2\text{ V}$ ,  $I_{OUT} = 1\text{ mA}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$ ,  $t_r = t_f = 5\text{ }\mu\text{s}$

Figure 31. Enable transient ( $V_{OUT} = V_{ADJ}$ )



$V_{OUT}$  at 0.8 V,  $V_{IN} = 1.9$ ,  $V_{EN} = 0$  to  $V_{IN}$ ,  $I_{OUT} = 200$  mA,  
 $C_{OUT} = 1 \mu\text{F}$ ,  $t_r = t_f = 1 \mu\text{s}$

Figure 32. Enable transient ( $V_{OUT} = 3$  V)



$V_{IN} = 4$  V,  $V_{EN} = 0$  to  $V_{IN}$ ,  $I_{OUT} = 200$  mA,  $C_{IN} = C_{OUT} = 1 \mu\text{F}$ ,  
 $t_r = t_f = 1 \mu\text{s}$

Figure 33. Dropout voltage vs. temperature ( $I_{OUT} = 100$  mA)

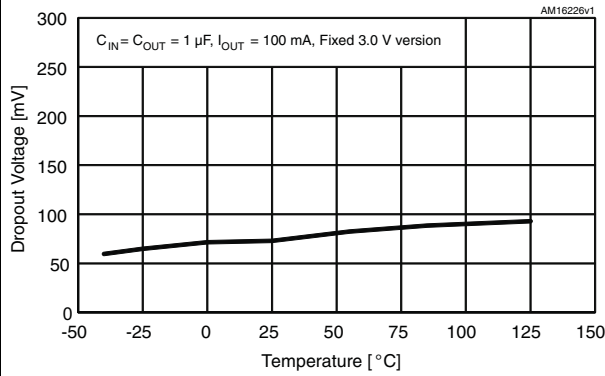
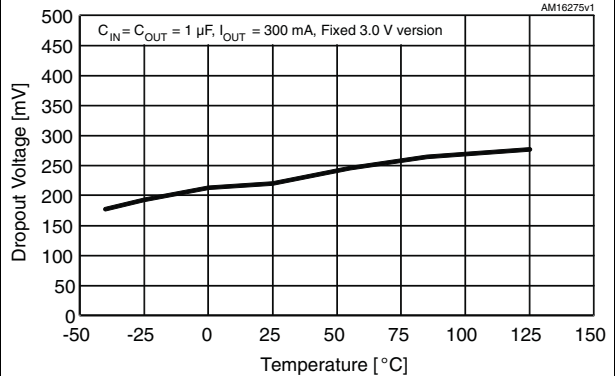


Figure 34. Dropout voltage vs. temperature ( $I_{OUT} = 300$  mA)





## 7 Package information

In order to meet environmental requirements, ST offers these devices in different grades of ECOPACK<sup>®</sup> packages, depending on their level of environmental compliance. ECOPACK specifications, grade definitions and product status are available at: [www.st.com](http://www.st.com). ECOPACK is an ST trademark.

### 7.1 SOT23-5L package information

Figure 35. SOT23-5L package outline

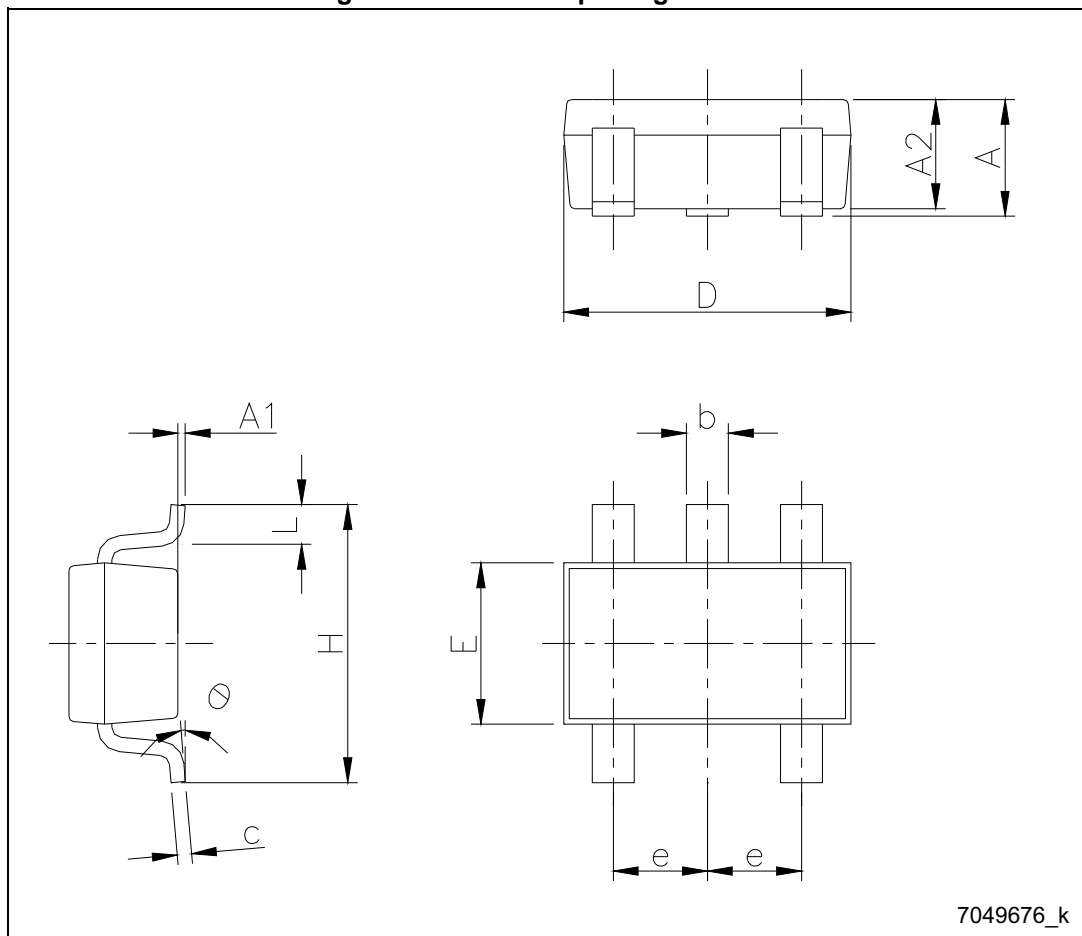
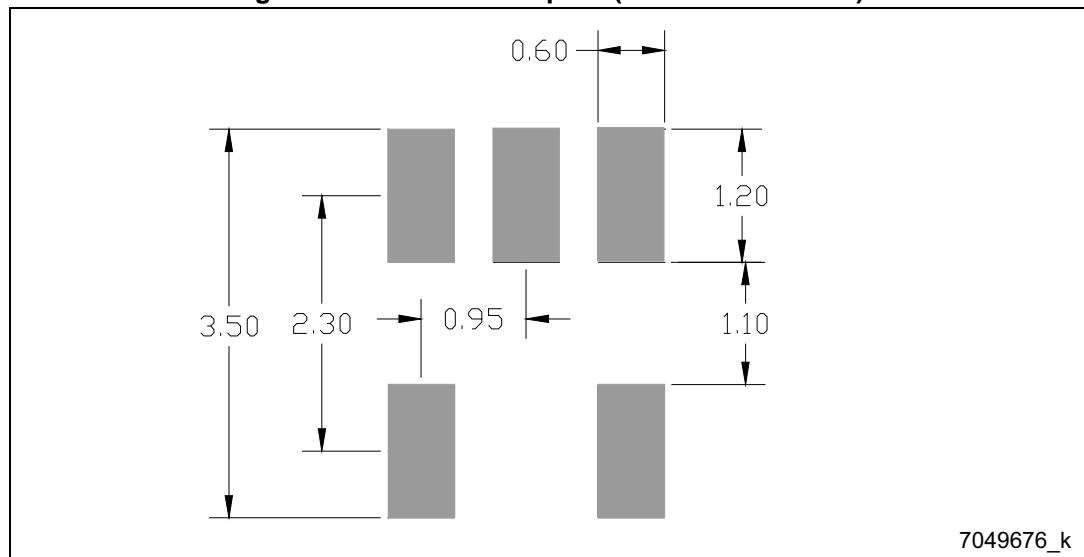


Table 6. SOT23-5L package mechanical data

| Symbol   | Dimensions (mm) |      |      |
|----------|-----------------|------|------|
|          | Min.            | Typ. | Max. |
| A        | 0.90            | -    | 1.45 |
| A1       | 0               | -    | 0.15 |
| A2       | 0.90            | -    | 1.30 |
| b        | 0.30            | -    | 0.50 |
| c        | 2.09            | -    | 0.20 |
| D        | -               | 2.95 | -    |
| E        | -               | 1.60 | -    |
| e        | -               | 0.95 | -    |
| H        | -               | 2.80 | -    |
| L        | 0.30            | -    | 0.60 |
| $\theta$ | 0               | -    | 8    |

Figure 36. SOT23-5L footprint (dimensions in mm)



## 7.2 DFN6 1.2 x 1.3 package information

Figure 37. DFN6 1.2 x 1.3 package outline

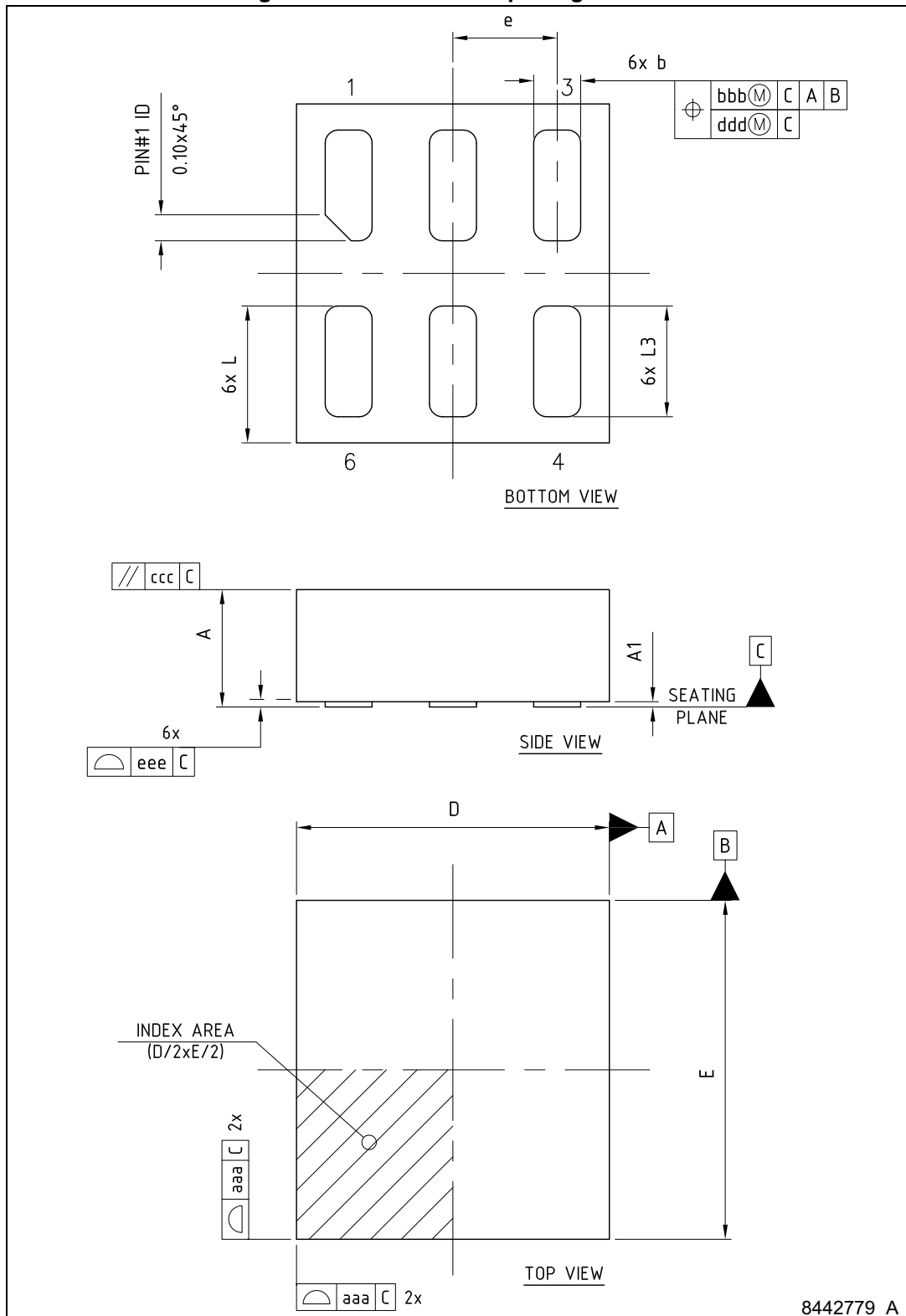
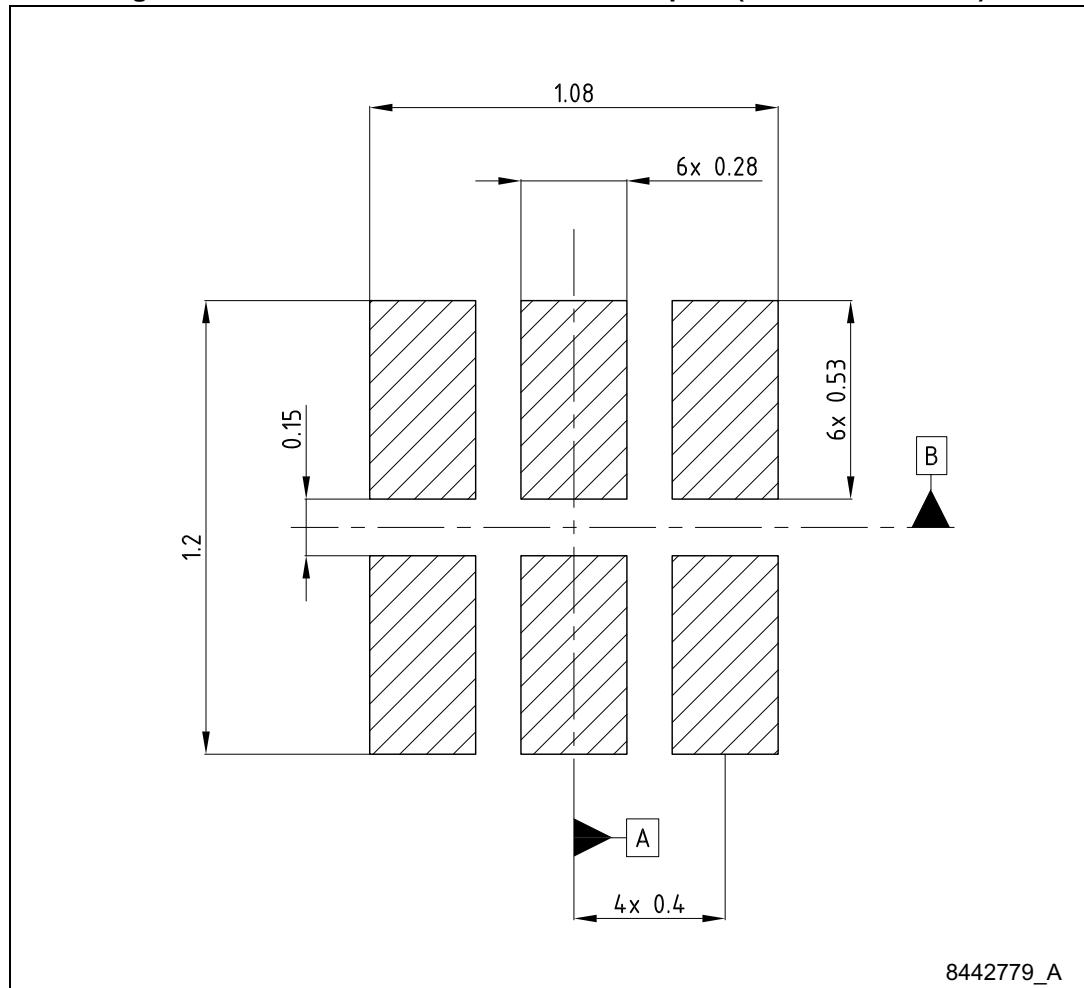


Table 7. DFN6 1.2 x 1.3 package mechanical data

| Symbol | Dimensions (mm) |       |       |
|--------|-----------------|-------|-------|
|        | Min.            | Typ.  | Max.  |
| A      | 0.41            | 0.45  | 0.50  |
| A1     | 0.00            | 0.02  | 0.05  |
| D      | -               | 1.20  | -     |
| E      | -               | 1.30  | -     |
| e      | -               | 0.40  | -     |
| b      | 0.15            | 0.18  | 0.25  |
| L      | 0.475           | 0.525 | 0.575 |
| L3     | 0.375           | 0.425 | 0.475 |
| aaa    | -               | 0.05  | -     |

Figure 38. DFN6 1.2 x 1.3 recommended footprint (dimensions in mm)



8442779\_A

### 7.3 SOT323-5L package information

Figure 39. SOT323-5L package outline

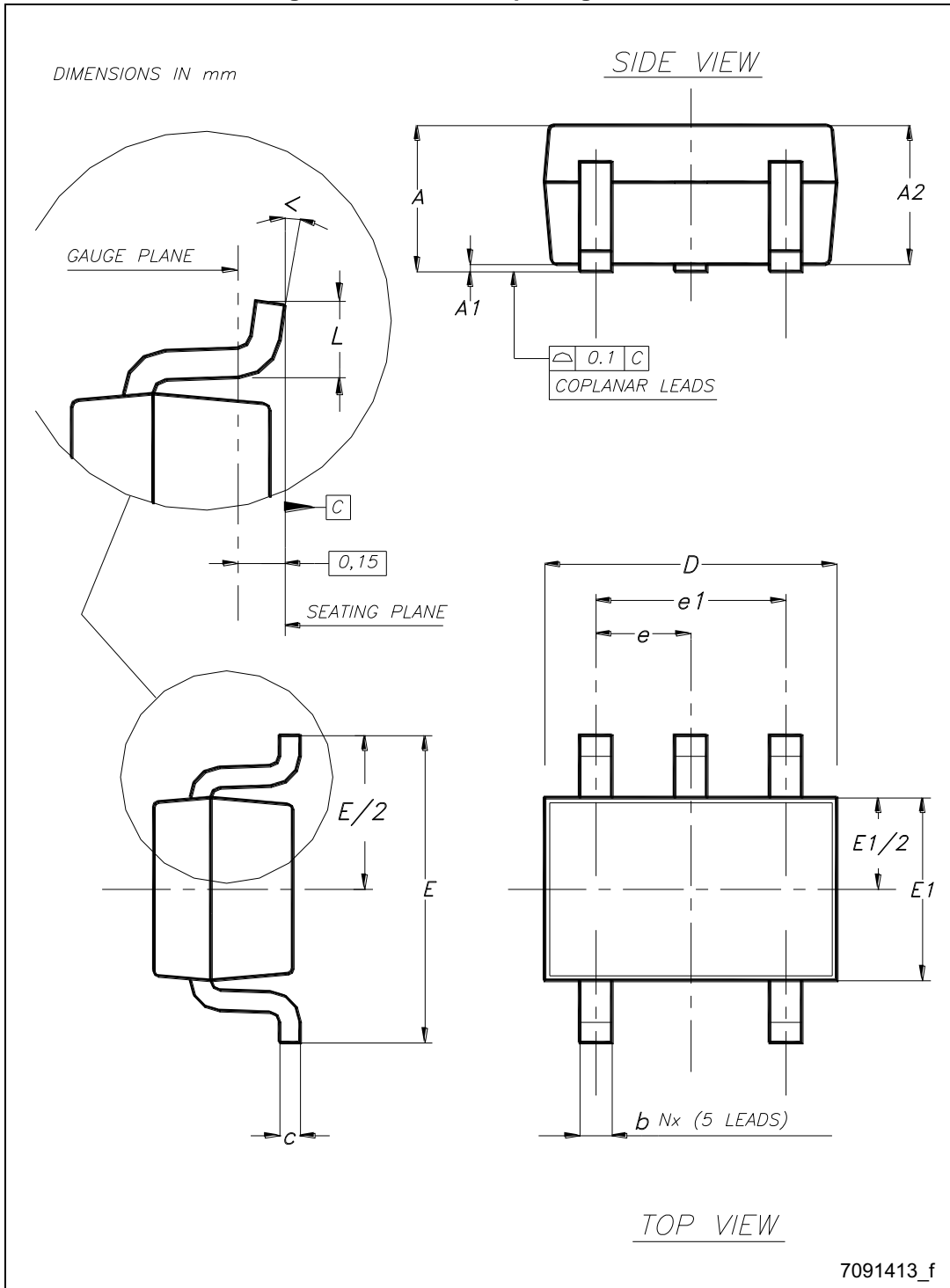


Table 8. SOT323-5L mechanical data

| Symbol | Dimensions (mm) |      |      |
|--------|-----------------|------|------|
|        | Min.            | Typ. | Max. |
| A      | 0.80            | -    | 1.10 |
| A1     | 0               | -    | 0.10 |
| A2     | 0.80            | 0.90 | 1    |
| b      | 0.15            | -    | 0.30 |
| c      | 0.10            | -    | 0.22 |
| D      | 1.80            | 2    | 2.20 |
| E      | 1.80            | 2.10 | 2.40 |
| E1     | 1.15            | 1.25 | 1.35 |
| e      | -               | 0.65 | -    |
| e1     | -               | 1.30 | -    |
| L      | 0.26            | 0.36 | 0.46 |
| <      | 0°              | -    | 8°   |

7.4 Packing information

7.5 SOT23-5L and SOT323-5L packing information

Figure 40. SOT23-5L and SOT323-5L tape and reel outline

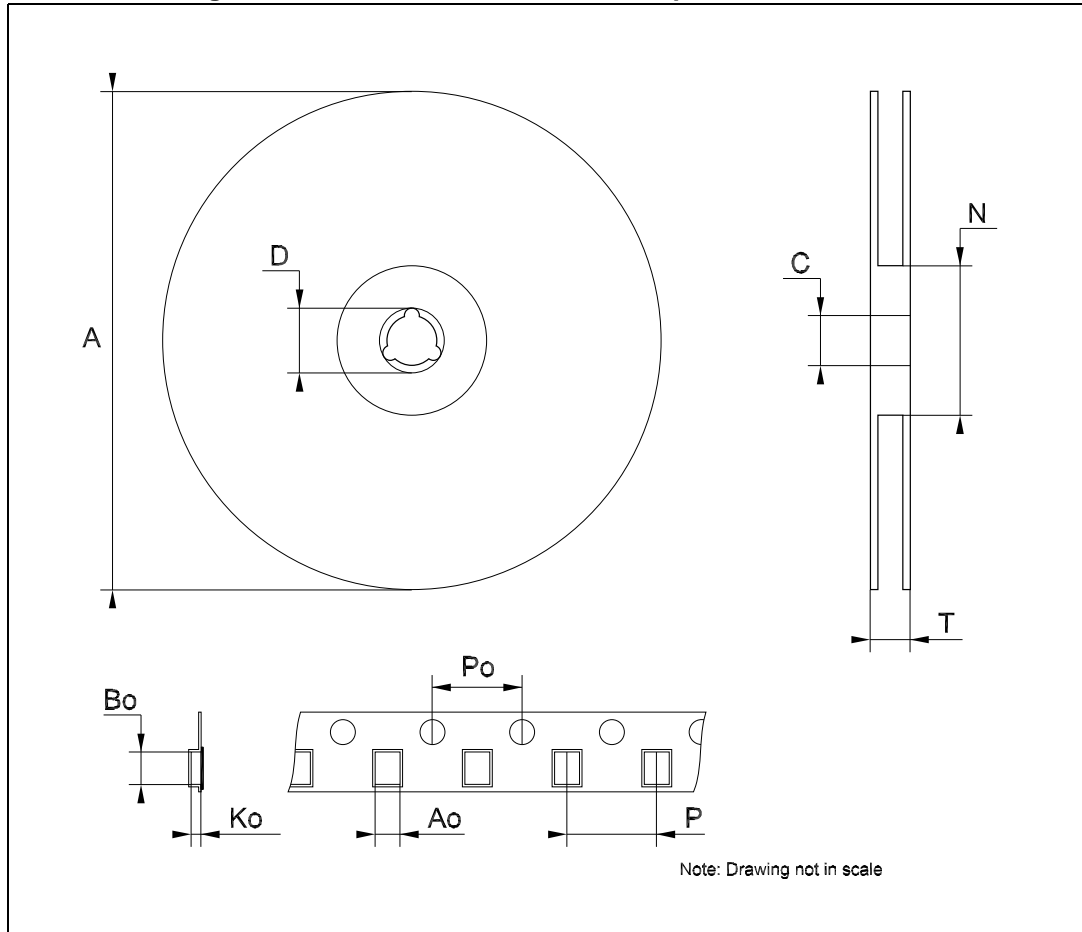


Table 9. SOT23-5L tape and reel mechanical data

| Symbol | Dimensions (mm) |      |      |
|--------|-----------------|------|------|
|        | Min.            | Typ. | Max. |
| A      | -               | -    | 180  |
| C      | 12.8            | 13.0 | 13.2 |
| D      | 20.2            | -    | -    |
| N      | 60              | -    | -    |
| T      | -               | -    | 14.4 |
| Ao     | 3.13            | 3.23 | 3.33 |
| Bo     | 3.07            | 3.17 | 3.27 |
| Ko     | 1.27            | 1.37 | 1.47 |
| Po     | 3.9             | 4.0  | 4.1  |
| P      | 3.9             | 4.0  | 4.1  |

Table 10. SOT323-5L tape and reel mechanical data

| Symbol | Dimensions (mm) |      |      |
|--------|-----------------|------|------|
|        | Min.            | Typ. | Max. |
| A      | 175             | 180  | 185  |
| C      | 12.8            | 13   | 13.2 |
| D      | 20.2            | -    | -    |
| N      | 59.5            | 60   | 60.5 |
| T      | -               | -    | 14.4 |
| Ao     | -               | 2.25 | -    |
| Bo     | -               | 3.17 | -    |
| Ko     | -               | 1.2  | -    |
| Po     | 3.9             | 4.0  | 4.1  |
| P      | 3.9             | 4.0  | 4.2  |



## 8 Order code

Table 11. Order code

| Packages   |            |                         |             | Output voltages |
|------------|------------|-------------------------|-------------|-----------------|
| SOT323-5L  | SOT23-5L   | SOT23-5L <sup>(1)</sup> | DFN6L       |                 |
| LDK130C-R  | LDK130M-R  | -                       | LDK130PU-R  | ADJ             |
| LDK130C08R | LDK130M08R | -                       | LDK130PU08R | 0.8 V           |
| LDK130C10R | LDK130M10R | -                       | LDK130PU10R | 1 V             |
| LDK130C12R | LDK130M12R | -                       | LDK130PU12R | 1.2 V           |
| LDK130C15R | LDK130M15R | LDK130M15RY             | LDK130PU15R | 1.5 V           |
| LDK130C18R | LDK130M18R | LDK130M18RY             | LDK130PU18R | 1.8 V           |
| -          | LDK130M25R | -                       | LDK130PU25R | 2.5 V           |
| -          | -          | LDK130M28RY             | -           | 2.8 V           |
| LDK130C29R | LDK130M29R | -                       | LDK130PU29R | 2.9 V           |
| -          | -          | -                       | LDK130PU30R | 3 V             |
| LDK130C32R | LDK130M32R | -                       | LDK130PU32R | 3.2 V           |
| LDK130C33R | LDK130M33R | LDK130M33RY             | LDK130PU33R | 3.3 V           |

1. Automotive grade according to AEC-Q100 level 1.

Table 12. Marking

| Order code  | Package   | Output voltage | Marking |
|-------------|-----------|----------------|---------|
| LDK130MxxR  | SOT23-5L  | x.x V          | Kxx     |
| LDK130CxxR  | SOT323-5L | x.x V          | Kxx     |
| LDK130PUxxR | DFN-6L    | x.x V          | xx      |
| LDK130M-R   | SOT23-5L  | Adj            | KAD     |
| LDK130C-R   | SOT323-5L | Adj            | KAD     |
| LDK130PU-R  | DFN-6L    | Adj            | AD      |
| LDK130MxxRY | SOT23-5L  | x.x V          | KxxY    |

## 9 Revision history

**Table 13. Document revision history**

| Date        | Revision | Changes  |
|-------------|----------|--|
| 31-Jan-2013 | 1        | Initial release  |
| 25-Oct-2013 | 2        | RPN LDK130xx changed to LDK130.<br>Updated the Features and the Description in cover page.<br>Canceled Table1: Device summary.<br>Updated <i>Section 7: Package mechanical data</i> , <i>Table 2: Absolute maximum ratings</i> and <i>Table 11: Order codes</i> .<br>Added <i>Section 8: Packaging mechanical data</i> .<br>Minor text changes.                                |
| 10-Mar-2014 | 3        | Updated <i>Table 11: Order codes</i> .   |
| 07-Sep-2017 | 4        | Updated main title <i>on page 1</i> , <i>Section : Features on page 1</i> , <i>Table 11 on page 25</i> and <i>Table 12 on page 25</i> (added "automotive grade level 1" - AEC-Q100 qualified).<br>Updated <i>Features</i> (replaced "max. 120 $\mu$ A" by "typ. 30 $\mu$ A").<br>Updated <i>Section : Applications on page 1</i> .<br>Minor modifications throughout document. |
| 26-Oct-2017 | 5        | Updated LDK130M28RY in <i>Table 11: Order codes</i>  |
| 17-Jan-2018 | 6        | Updated <a href="#">Figure 22</a> and <a href="#">Figure 23</a> .  |

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