

## 200 mA high accuracy and high PSRR voltage regulator



SOT23-5L



SOT-89

Maturity status link

[LDK320](#)

### Features

- Input voltage from 2.5 to 18 V
- Very low-dropout voltage (100 mV typ. @ 100 mA load)
- Low quiescent current (typ. 60  $\mu$ A, 1  $\mu$ A in off mode)
- High PSRR: 88 dB @ 120 Hz
- Low noise
- Output voltage tolerance:  $\pm 0.5\%$  @ 25 °C (LDK320A) or  $\pm 2\%$  25 °C
- Output current up to 200 mA
- Wide range of output voltages available on request: fixed from 1.2 V to 12 V with 100 mV step and adjustable
- Logic-controlled electronic shutdown
- Compatible with ceramic capacitor  $C_{OUT} = 1 \mu$ F
- Current, SOA and thermal protections
- Available in SOT23-5L and SOT-89 packages
- Temperature range: -40 °C to 125 °C

### Applications

- DSC
- TV
- BD, DVD
- PC
- Industrial

### Description

The **LDK320** is a low drop voltage regulator, which provides a maximum output current of 200 mA from an input voltage in the range of 2.5 V to 18 V, with a typical dropout voltage of 100 mV.

It is stabilized with a ceramic capacitor on the output.

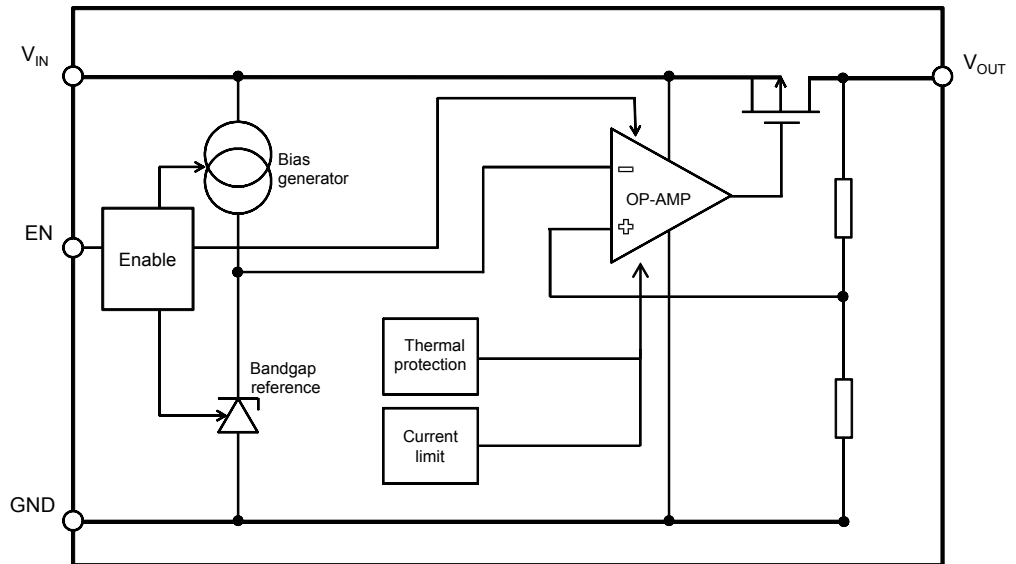
The very good dynamic characteristic, combined with low drop voltage and low quiescent current make it suitable for low power battery-powered applications.

The enable logic control function allows the **LDK320** to be in shutdown mode by consuming a total current lower than 1  $\mu$ A.

This device also includes a short-circuit current limiting, thermal and SOA protections.

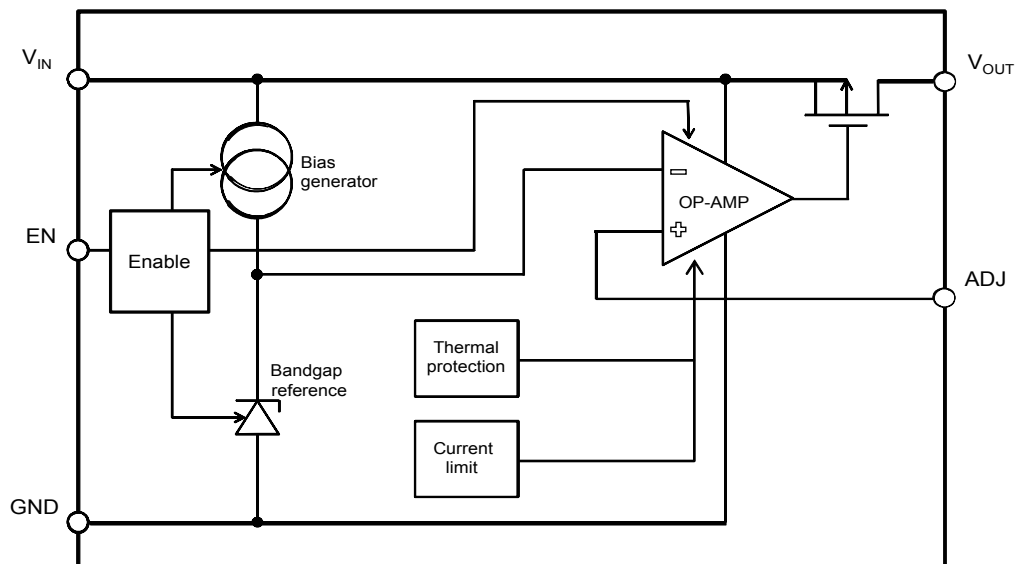
# 1 Diagram

Figure 1. Block diagram (fixed version)

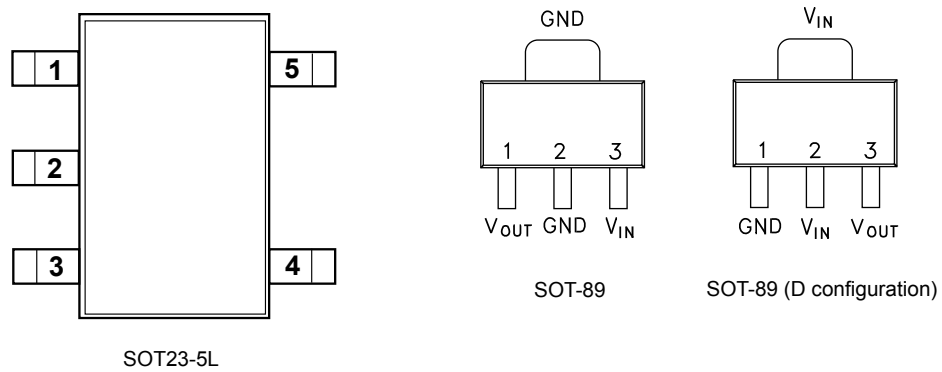


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Figure 2. Block diagram (adjustable version)



## 2 Pin configuration

**Figure 3. Pin connection (top view)**


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**Table 1. Pin description (SOT23-5L)**

Pin n°	Symbol	Function
1	IN	Input voltage of the LDO
2	GND	Common ground
3	EN	Enable pin logic input: low = shutdown, high = active
4	ADJ/NC	Adjustable pin on ADJ version, not connected on fixed version
5	OUT	Output voltage of the LDO

**Table 2. Pin description (SOT-89)**

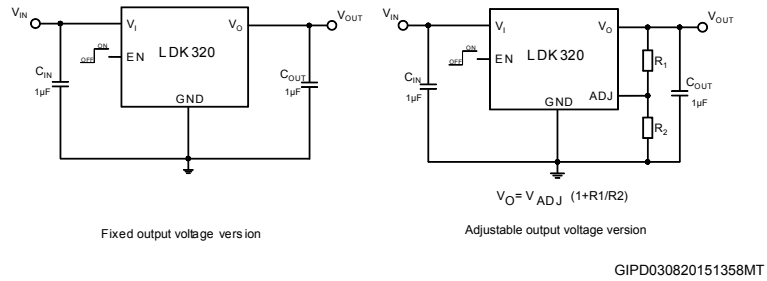
Pin n°	Symbol	Function
1	OUT	Output voltage of the LDO
2	GND	Common ground
3	IN	Input voltage of the LDO
TAB	GND	Common ground

**Table 3. Pin description (SOT-89, D configuration)**

Pin n°	Symbol	Function
1	GND	Common ground
2	IN	Input voltage of the LDO
3	OUT	Output voltage of the LDO
TAB	IN	Input voltage of the LDO

### 3 Typical application

**Figure 4. Typical application circuits**



*Note: Adjustable version and enable pin are not available on SOT-89 package.*

## 4 Maximum ratings

**Table 4. Absolute maximum ratings**

Symbol	Parameter	Value	Unit
$V_{IN}$	DC input voltage	- 0.3 to 20	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
$V_{ADJ}$	ADJ pin voltage	- 0.3 to 2	V
$I_{OUT}$	Output current	Internally limited	mA
$P_D$ <sup>(1)</sup>	Power dissipation	Internally limited	mW
$T_{STG}$	Storage temperature range	- 65 to 150	°C
$T_{OP}$	Operating junction temperature range	- 40 to 125	°C

1. Maximum power dissipation must be calculated by taking into account the package and thermal performance.

**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 5. Thermal data**

Symbol	Parameter	SOT23-5L	SOT-89	Unit
$R_{thJA}$	Thermal resistance junction-ambient	160	110	°C/W
$R_{thJC}$	Thermal resistance junction-case	68	15	°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 6. LDK320 electrical characteristics (fixed output version)**

Symbol	Parameter	Test conditions	Min.	Typ.	Max.	Unit
$V_{IN}$	Operating input voltage		2.5		18	V
$V_{OUT}$	$V_{OUT}$ accuracy	$T_J = 25\text{ °C}$	-2		2	%
		$-40\text{ °C} < T_J < 125\text{ °C}$	-3		3	%
	$V_{OUT}$ accuracy, LDK320A	$T_J = 25\text{ °C}$	-0.5		0.5	%
		$-40\text{ °C} < T_J < 125\text{ °C}$	-1.5		1.5	%
$\Delta V_{OUT}$	Static line regulation	$V_{OUT} + 1\text{ V} \leq V_{IN} \leq 18\text{ V}$		0.001	0.05	%/V
$\Delta V_{OUT}$	Static load regulation (SOT23-5L)	$I_{OUT} = 1\text{ mA to }200\text{ mA}$ , $V_{OUT} \leq 2\text{ V}$		10	15	mV
		$I_{OUT} = 1\text{ mA to }200\text{ mA}$ , $V_{OUT} > 2\text{ V}$		0.001	0.003	%/mA
$\Delta V_{OUT}$	Static load regulation (SOT-89)	$I_{OUT} = 1\text{ mA to }200\text{ mA}$ , $V_{OUT} \leq 2\text{ V}$		10	25	mV
		$I_{OUT} = 1\text{ mA to }200\text{ mA}$ , $V_{OUT} > 2\text{ V}$		0.001	0.004	%/mA
$V_{DROP}$	Dropout voltage <sup>(1)</sup>	$I_{OUT} = 100\text{ mA}$ , $V_{OUT} = 3.3\text{ V}$		100		
		$I_{OUT} = 200\text{ mA}$ , $V_{OUT} = 3.3\text{ V}$ $40\text{ °C} < T_J < 125\text{ °C}$		200	350	mV
$e_N$	Output noise voltage	10 Hz to 100 kHz, $I_{OUT} = 10\text{ mA}$		63		$\mu\text{V}_{RMS}/\text{V}$
SVR	Supply voltage rejection	$f = 120\text{ Hz}$ , $I_{OUT} = 10\text{ mA}$ , $V_{OUT} = 3.3\text{ V}$		88		dB
		$f = 1\text{ kHz}$ , $I_{OUT} = 10\text{ mA}$ , $V_{OUT} = 3.3\text{ V}$		65		
		$f = 10\text{ kHz}$ , $I_{OUT} = 10\text{ mA}$ , $V_{OUT} = 3.3\text{ V}$		48		
$I_Q$	Quiescent current	$V_{OUT} + 1\text{ V}$ , $V_{IN} = 18\text{ V}$ , $I_{OUT} = 0\text{ mA}$ , $-40\text{ °C} < T_J < 125\text{ °C}$		60	90	$\mu\text{A}$
		$V_{IN} = V_{OUT} + 1\text{ V}$ , $I_{OUT} = 200\text{ mA}$ , $-40\text{ °C} < T_J < 125\text{ °C}$		70	100	
		$V_{IN}$ input current in OFF mode: $V_{EN} = G_{ND}$ , $T_J = 25\text{ °C}$		0.2	1	
$I_{SC}$	Short-circuit current	$R_L = 0$		330		mA
		$R_L = 0$ , $V_{IN} = 16\text{ V}$		200		

Symbol	Parameter	Test conditions	Min.	Typ.	Max.	Unit
$V_{EN}$	Enable input logic low	$V_{IN} = 2.5\text{ V to }18\text{ V}$ , $-40\text{ }^{\circ}\text{C} < T_J < 125\text{ }^{\circ}\text{C}$			0.4	V
	Enable input logic high	$V_{IN} = 2.5\text{ V to }18\text{ V}$ , $-40\text{ }^{\circ}\text{C} < T_J < 125\text{ }^{\circ}\text{C}$	1.2			
$I_{EN}$	Enable pin input current	$V_{EN} = V_{IN}$		0.1	100	nA
$T_{SHDN}$	Thermal shutdown			160		$^{\circ}\text{C}$
	Hysteresis			20		
$C_{OUT}$	Output capacitor	Capacitance (see Section 6 Typical characteristics)	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.

$T_J = 25\text{ }^{\circ}\text{C}$ ,  $V_{IN} = 2.5\text{ V}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$ ,  $I_{OUT} = 1\text{ mA}$ ,  $V_{EN} = V_{IN}$ , unless otherwise specified.

**Table 7. LDK320 electrical characteristics (ADJ version)**

Symbol	Parameter	Test conditions	Min.	Typ.	Max.	Unit
$V_{IN}$	Operating input voltage		2.5		18	V
$V_{ADJ}$	Adjustable voltage	$T_J = 25\text{ }^\circ\text{C}$		1.185		V
	Adjustable voltage accuracy	$T_J = 25\text{ }^\circ\text{C}$	-2		+2	%
		$40\text{ }^\circ\text{C} < T_J < 125\text{ }^\circ\text{C}$	-3		+3	
	Adjustable voltage, LDK320A	$T_J = 25\text{ }^\circ\text{C}$		1.2		V
Adjustable voltage accuracy, LDK320A	$T_J = 25\text{ }^\circ\text{C}$	-0.5		+0.5	%	
	$40\text{ }^\circ\text{C} < T_J < 125\text{ }^\circ\text{C}$	-1.5		+1.5		
$\Delta V_{OUT}$	Static line regulation	$V_{OUT} + 1\text{ V} \leq V_{IN} \leq 18\text{ V}$		0.001	0.05	%/V
$\Delta V_{OUT}$	Static load regulation	$I_{OUT} = 1\text{ mA to } 200\text{ mA}$		0.0002	0.003	%/mA
$V_{DROP}$	Dropout voltage <sup>(1)</sup>	$I_{OUT} = 100\text{ mA}, V_{OUT} = 3.3\text{ V}$		100		mV
		$I_{OUT} = 200\text{ mA}, V_{OUT} = 3.3\text{ V}$ $40\text{ }^\circ\text{C} < T_J < 125\text{ }^\circ\text{C}$		200	350	
$e_N$	Output noise voltage	10 Hz to 100 kHz $I_{OUT} = 10\text{ mA}$		60		$\mu\text{V}_{RMS}$
$I_{ADJ}$	Adjust pin current				1	$\mu\text{A}$
SVR	Supply voltage rejection	$f = 120\text{ Hz } I_{OUT} = 10\text{ mA},$ $V_{OUT} = V_{ADJ}$		83		dB
		$f = 1\text{ kHz } I_{OUT} = 10\text{ mA},$ $V_{OUT} = V_{ADJ}$		73		
		$f = 10\text{ kHz } I_{OUT} = 10\text{ mA},$ $V_{OUT} = V_{ADJ}$		58		
$I_Q$	Quiescent current	$V_{OUT} + 1\text{ V} \leq V_{IN} \leq 18\text{ V},$ $I_{OUT} = 0\text{ mA},$ $-40\text{ }^\circ\text{C} < T_J < 125\text{ }^\circ\text{C}$		50	90	$\mu\text{A}$
		$V_{IN} = V_{OUT} + 1\text{ V},$ $I_{OUT} = 200\text{ mA},$ $-40\text{ }^\circ\text{C} < T_J < 125\text{ }^\circ\text{C}$		60	100	
		$V_{IN}$ input current in OFF mode: $V_{EN} = \text{GND}, T_J = 25\text{ }^\circ\text{C}$		0.2	1	
$I_{SC}$	Short-circuit current	$R_L = 0$		330		mA
		$R_L = 0, V_{IN} = 16\text{ V}$		200		
$V_{EN}$	Enable input logic low	$V_{IN} = 2.5\text{ V to } 18\text{ V},$ $-40\text{ }^\circ\text{C} < T_J < 125\text{ }^\circ\text{C}$			0.4	V
	Enable input logic high	$V_{IN} = 2.5\text{ V to } 18\text{ V},$ $-40\text{ }^\circ\text{C} < T_J < 125\text{ }^\circ\text{C}$	1.2			
$I_{EN}$	Enable pin input current	$V_{EN} = V_{IN}$		0.1	100	nA
$T_{SHDN}$	Thermal shutdown			160		$^\circ\text{C}$
	Hysteresis			20		

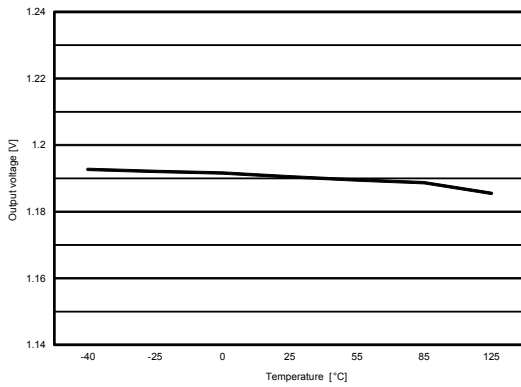


Symbol	Parameter	Test conditions	Min.	Typ.	Max.	Unit
C <sub>OUT</sub>	Output capacitor	Capacitance (see Section 6 Typical characteristics)	1		22	μF

## 6 Typical characteristics

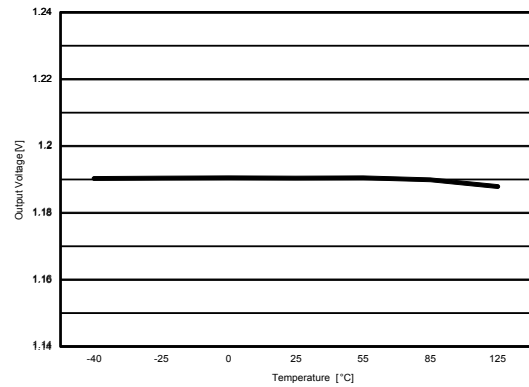
Unless otherwise specified:  $T_J = 25\text{ }^\circ\text{C}$ ,  $V_{IN} = V_{OUT(NOM)} + 1\text{ V}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$ .

**Figure 5. Output voltage vs. temperature ( $V_{IN} = 2.5\text{ V}$ ,  $V_{OUT} = V_{ADJ}$ ,  $I_{OUT} = 1\text{ mA}$ )**



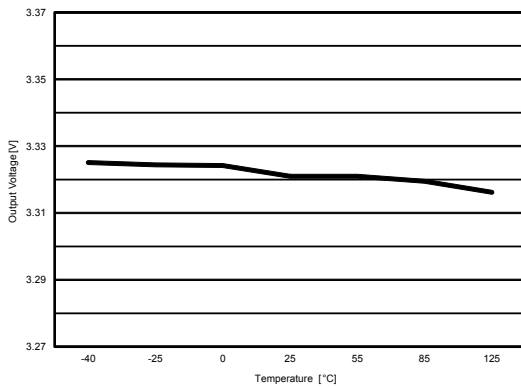
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**Figure 6. Output voltage vs. temperature ( $V_{IN} = 2.5\text{ V}$ ,  $V_{OUT} = V_{ADJ}$ ,  $I_{OUT} = 200\text{ mA}$ )**



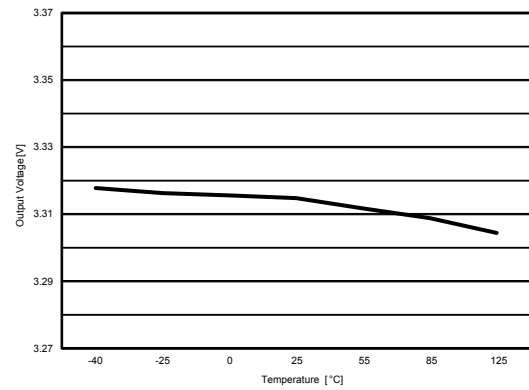
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**Figure 7. Output voltage vs. temperature ( $V_{IN} = 4.3\text{ V}$ ,  $V_{OUT} = 3.3\text{ V}$ ,  $I_{OUT} = 1\text{ mA}$ )**



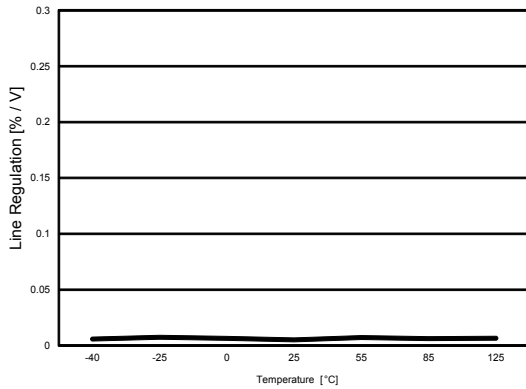
GIPD040820151209MT

**Figure 8. Output voltage vs. temperature ( $V_{IN} = 4.3\text{ V}$ ,  $V_{OUT} = 3.3\text{ V}$ ,  $I_{OUT} = 200\text{ mA}$ )**



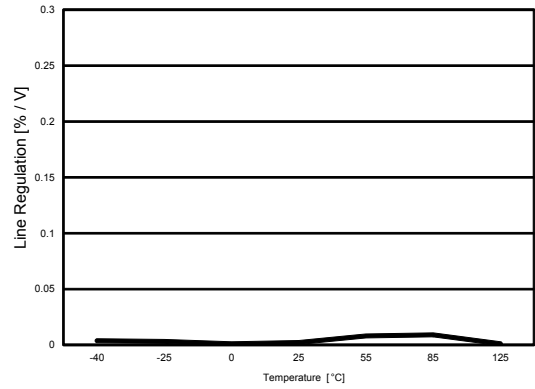
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**Figure 9. Line regulation vs. temperature ( $V_{IN} = 4.3$  to  $18$  V,  $V_{OUT} = 3.3$  V,  $I_{OUT} = 1$  mA)**



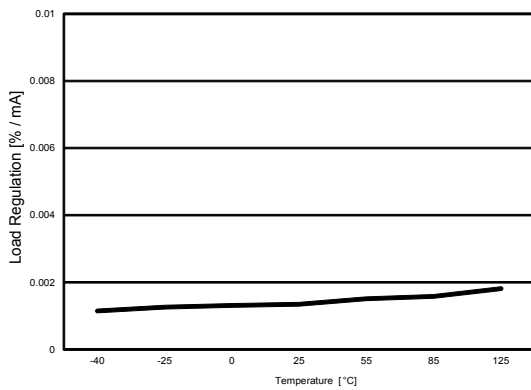
GIPD040820151211MT

**Figure 10. Line regulation vs. temperature ( $V_{IN} = 2.5$  to  $18$  V,  $V_{OUT} = V_{ADJ}$ ,  $I_{OUT} = 1$  mA)**



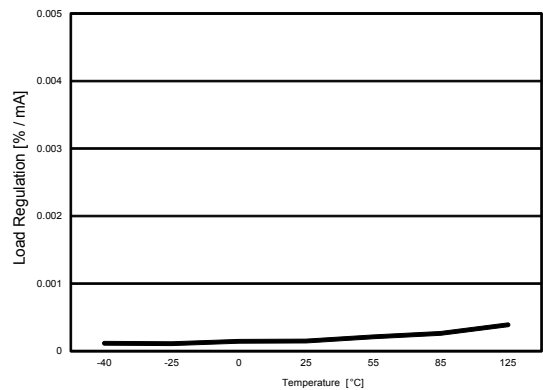
GIPD040820151212MT

**Figure 11. Load regulation vs. temperature ( $V_{IN} = 4.3$  V,  $V_{OUT} = 3.3$  V,  $I_{OUT} = 1$  to  $200$  mA)**



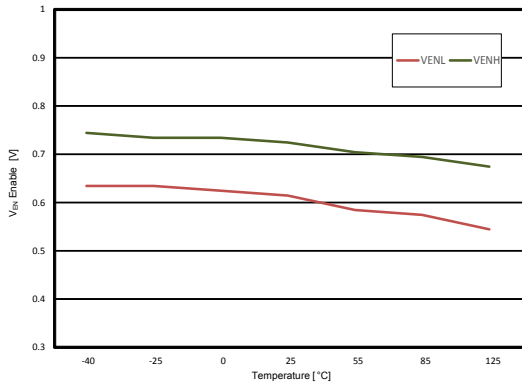
GIPD040820151213MT

**Figure 12. Load regulation vs. temperature ( $V_{IN} = 2.5$  V,  $V_{OUT} = V_{ADJ}$ ,  $I_{OUT} = 1$  to  $200$  mA)**



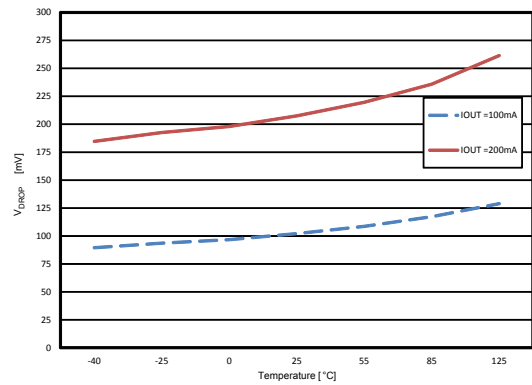
GIPD040820151214MT

**Figure 13. Enable thresholds vs. temperature ( $I_{OUT} = 1$  mA)**



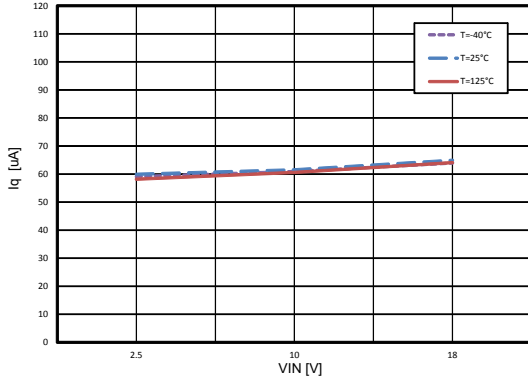
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**Figure 14. Dropout voltage vs. temperature**



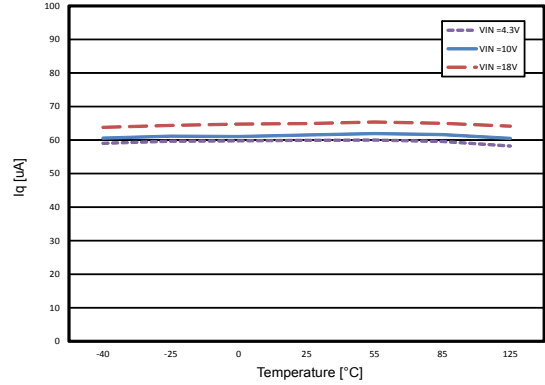
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**Figure 15. Quiescent current vs. input voltage**  
( $I_{OUT} = 1 \text{ mA}$ )



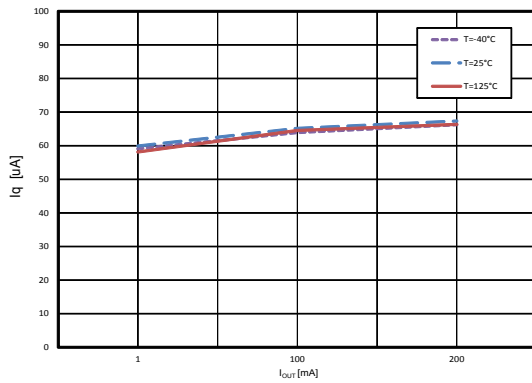
GIPD040820151217MT

**Figure 16. Quiescent current vs. temperature** ( $I_{OUT} = 1 \text{ mA}$ )



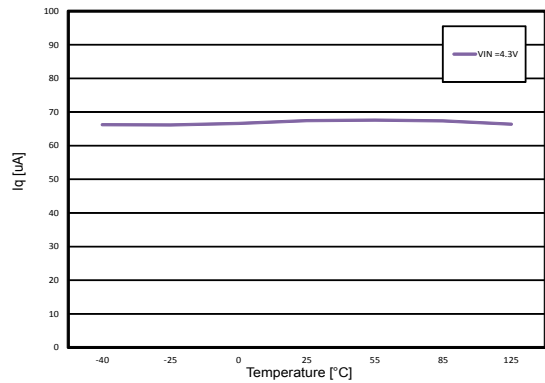
GIPD040820151218MT

**Figure 17. Quiescent current vs. output current**  
( $V_{IN} = 4.3 \text{ V}$ )



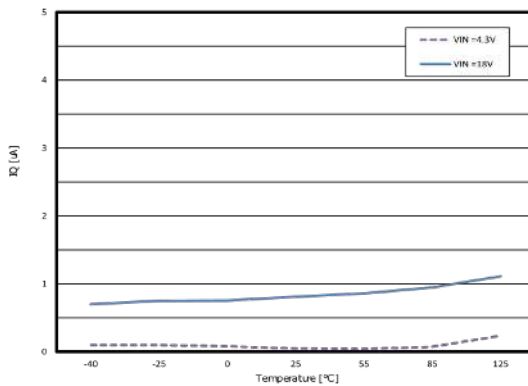
GIPD040820151219MT

**Figure 18. Quiescent current vs. temperature**  
( $I_{OUT} = 200 \text{ mA}$ )



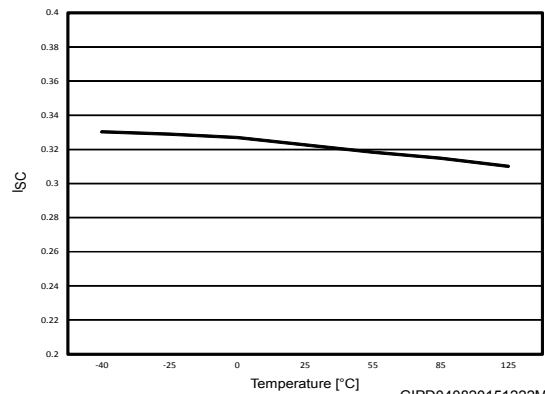
GIPD040820151220MT

**Figure 19. Off-state current vs. temperature**



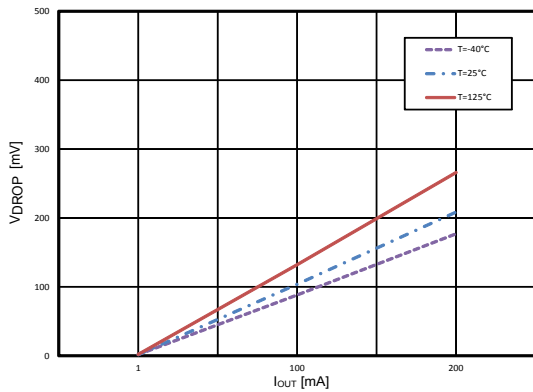
GIPD040820151221MT

**Figure 20. Short-circuit current vs. temperature**  
( $V_{IN} = 4.3 \text{ V}$ )



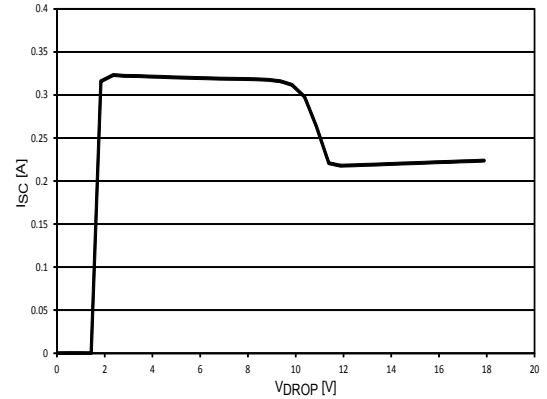
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**Figure 21. Dropout voltage vs. I<sub>OUT</sub>**



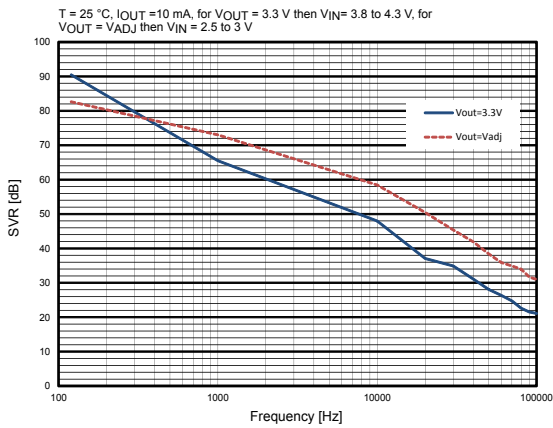
GIPD040820151223MT

**Figure 22. Short-circuit current vs. drop voltage**



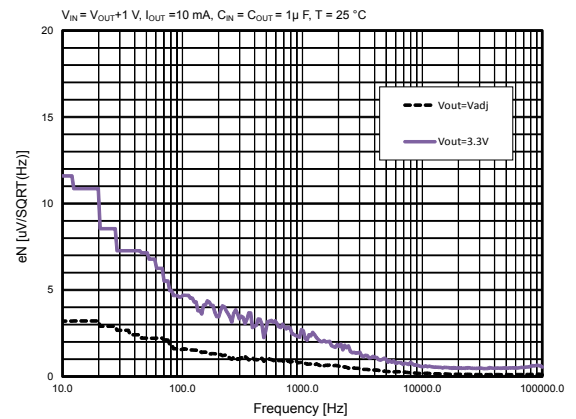
GIPD040820151224MT

**Figure 23. SVR vs. frequency**



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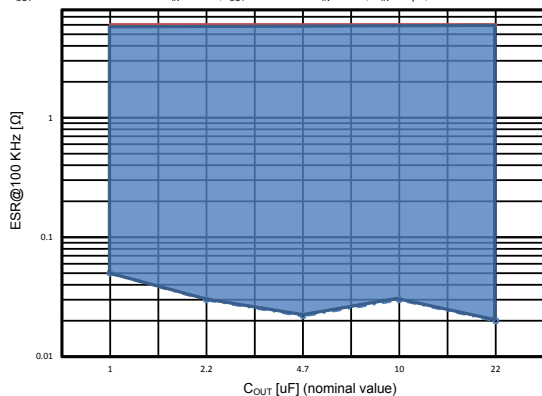
**Figure 24. Output noise spectral density**



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**Figure 25. Stability plan (V<sub>OUT</sub> = 3.3 V)**

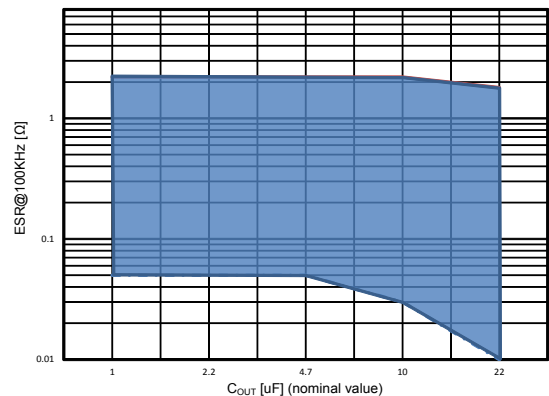
I<sub>OUT</sub> from 10 mA to 0.2 A for V<sub>IN</sub> = 4.3 V, I<sub>OUT</sub> = 0.18 A for V<sub>IN</sub> = 18 V, C<sub>N</sub> = 1 μF, T = 25 °C



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**Figure 26. Stability plan (V<sub>OUT</sub> = V<sub>ADJ</sub>)**

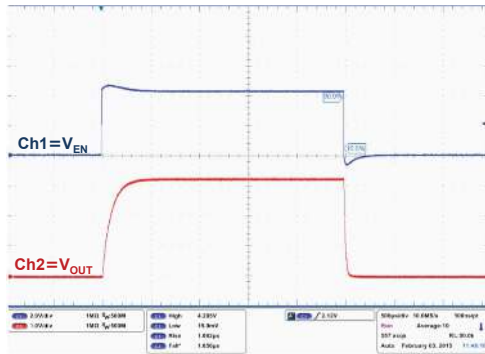
I<sub>OUT</sub> from 10 mA to 0.2 A for V<sub>IN</sub> = 2.5V, I<sub>OUT</sub> = 0.18 A for V<sub>IN</sub> = 18 V, C<sub>N</sub>=1 μF, T = 25 °C



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**Figure 27. Startup with enable ( $V_{OUT} = 3.3\text{ V}$ )**

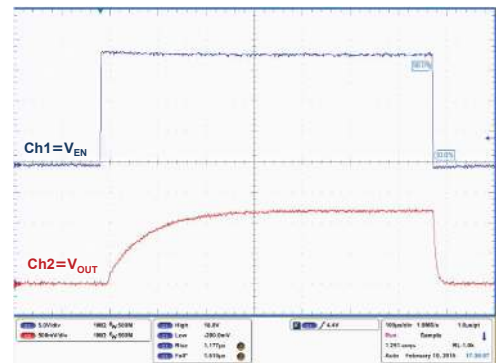
$V_{IN} = 4.3\text{ V}$ ,  $V_{EN}$  = from 0 to  $V_{IN}$ ,  $I_{OUT} = 200\text{ mA}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$   $t_{rise} = t_{fall} = 1\text{ }\mu\text{s}$



GIPD040820151229MT

**Figure 28. Startup with enable ( $V_{OUT} = V_{ADJ}$ )**

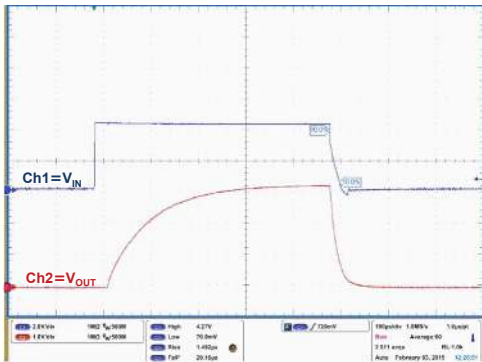
$V_{IN} = 18\text{ V}$ ,  $V_{EN}$  = from 0 to  $V_{IN}$ ,  $I_{OUT} = 200\text{ mA}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$   $t_{rise} = t_{fall} = 1\text{ }\mu\text{s}$



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**Figure 29. Turn-on time ( $V_{OUT} = 3.3\text{ V}$ )**

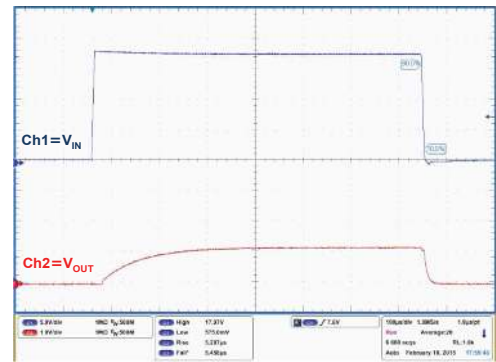
$V_{IN} = V_{EN}$  = from 0 to  $4.3\text{ V}$ ,  $I_{OUT} = 200\text{ mA}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$ ,  $T_{rise} = 1\text{ }\mu\text{s}$



GIPD040820151231MT

**Figure 30. Turn-on time ( $V_{OUT} = V_{ADJ}$ )**

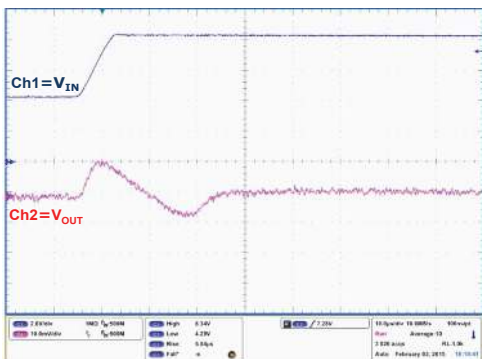
$V_{IN} = V_{EN}$  = from 0 to  $18\text{ V}$ ,  $I_{OUT} = 200\text{ mA}$ ,  $V_{OUT} = V_{REF}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$   $T_{rise} = 5\text{ }\mu\text{s}$



GIPD040820151232MT

**Figure 31. Line transient ( $V_{OUT} = 3.3\text{ V}$ , rise)**

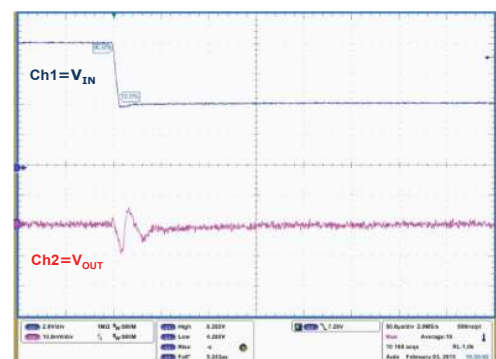
$V_{IN} = V_{EN}$  = from  $4.3$  to  $8.3\text{ V}$ ,  $I_{OUT} = 10\text{ mA}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$   $T_{rise} = 5\text{ }\mu\text{s}$



GIPD040820151233MT

**Figure 32. Line transient ( $V_{OUT} = 3.3\text{ V}$ , fall)**

$V_{IN} = V_{EN}$  = from  $4.3$  to  $8.3\text{ V}$ ,  $I_{OUT} = 10\text{ mA}$ ,  $C_{IN} = C_{OUT} = 1\text{ }\mu\text{F}$   $T_{fall} = 5\text{ }\mu\text{s}$



GIPD040820151234MT



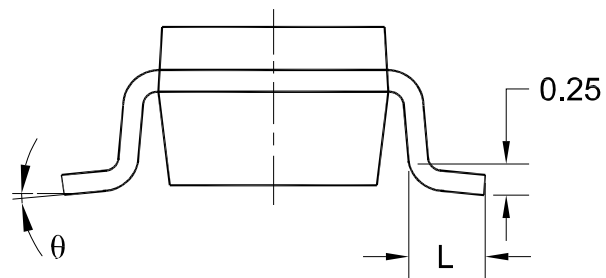
## 7 Package information

In order to meet environmental requirements, ST offers these devices in different grades of **ECOPACK** 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.

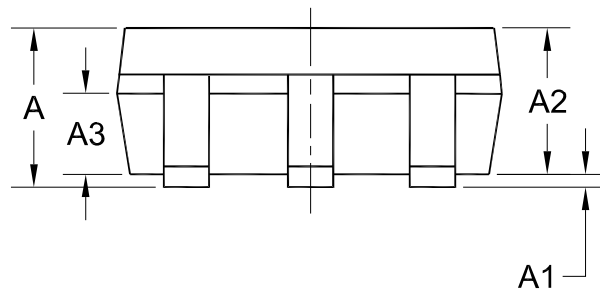
### 7.1 SOT23-5L package information

Figure 35. SOT23-5L package outline (option A)

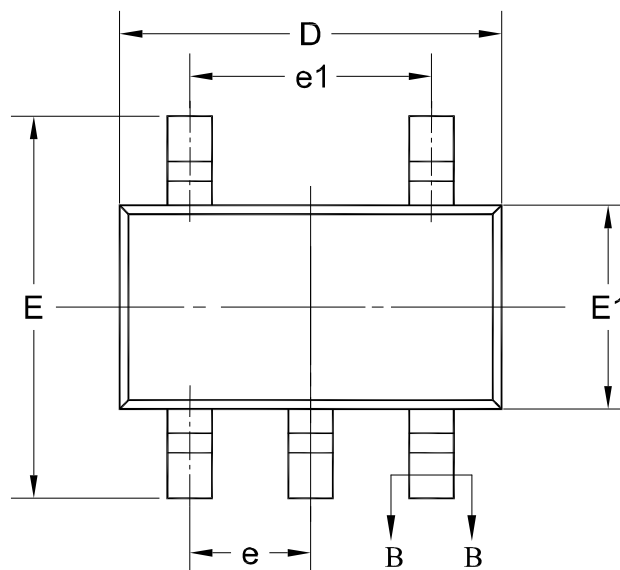
SIDE VIEW



SIDE VIEW



TOP VIEW



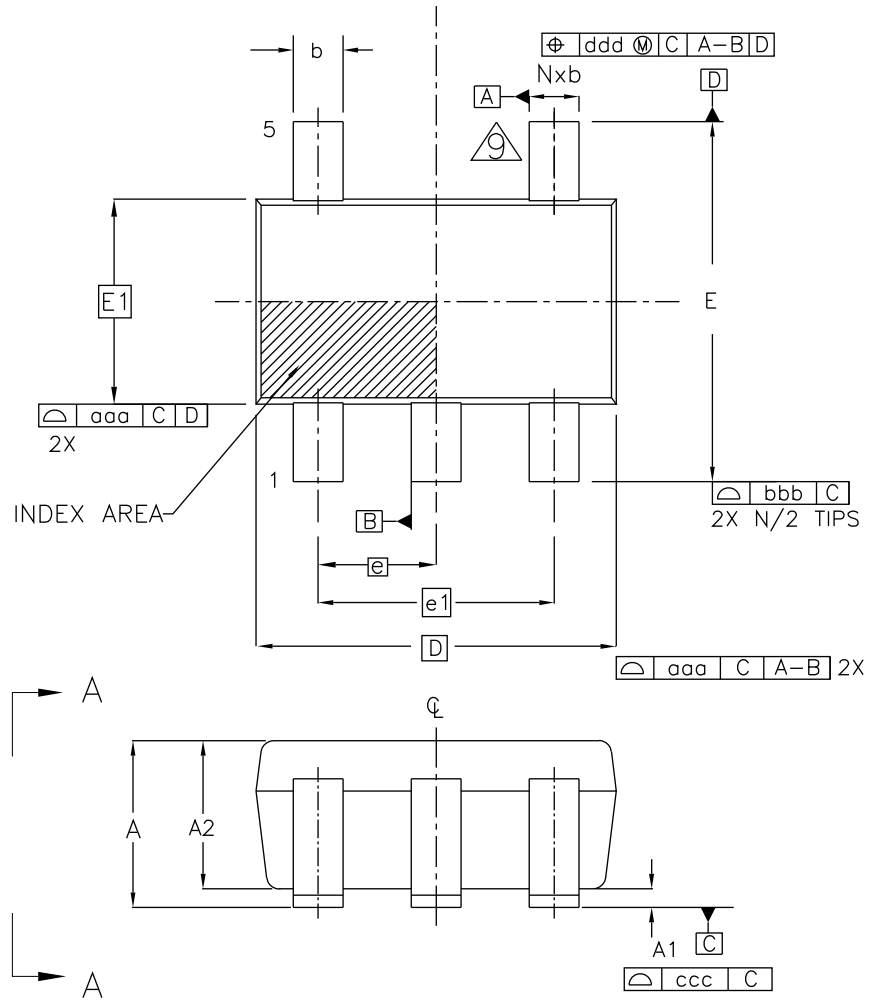


**Table 8. SOT23-5L mechanical data (option A)**

Dimensions (mm)			
Symbol	Min.	Nom.	Max.
A	-	-	1.25
A1	0.04	-	0.10
A2	1.00	1.10	1.20
b	0.33	-	0.41
b1	0.32	0.35	0.38
c	0.15	-	0.19
c1	0.14	0.15	0.16
D	2.82	2.92	3.02
E	2.60	2.80	3.00
E1	1.50	1.60	1.70
e	0.95 BSC		
e1	1.90 BSC		
L	0.30	-	0.60
Θ	0°		8°

## 7.2 SOT23-5L package information

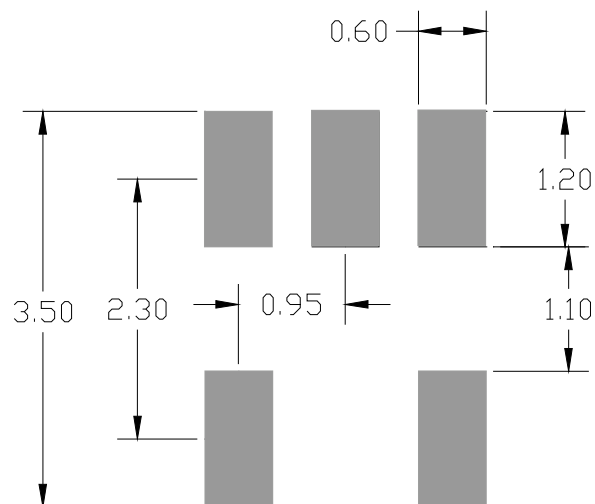
Figure 36. SOT23-5L package outline (option B)



**Table 9. SOT23-5L package mechanical data (option B)**

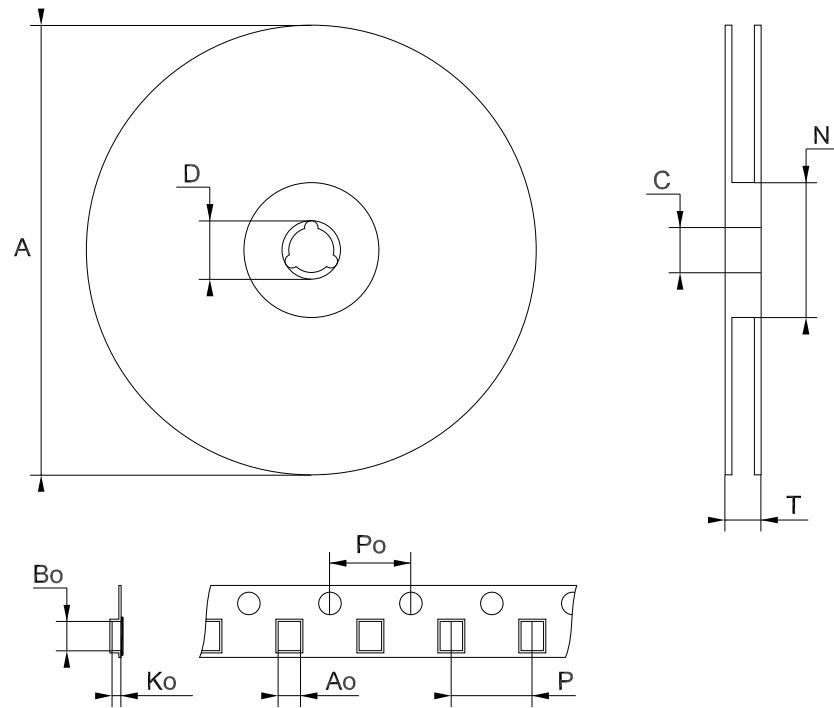
Dim.	mm		
	Min.	Typ.	Max.
A	0.90		1.45
A1	0		0.15
A2	0.90		1.30
b	0.30		0.50
c	0.14		0.20
c1	0.14	0.15	0.16
D	2.90 BSC		
E	2.80 BSC		
E1	1.60 BSC		
e	0.95 BSC		
e1	1.90 BSC		
L	0.30		0.55
L2	0.25		
N	5		
θ	0°		8°
	<b>Tolerance</b>		
aaa	0.15		
bbb	0.20		
ccc	0.10		
ddd	0.20		
eee	0.08		

**Figure 37. SOT23-5L recommended footprint**



*Note:*      *Dimensions are in mm*

### 7.3 SOT23-5L packing information

**Figure 38. SOT23-5L tape and reel outline**


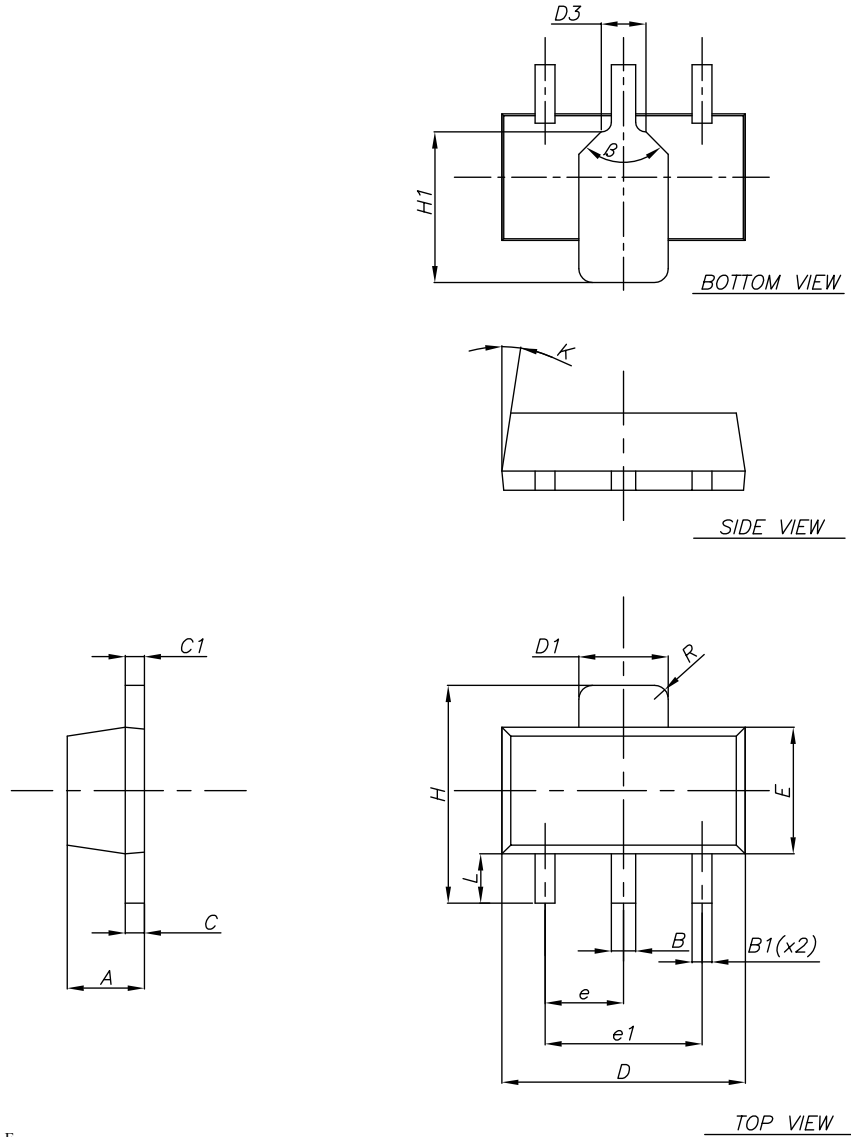
Note: Drawing not in scale

**Table 10. SOT23-5L tape and reel mechanical data**

Dim.	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

## 7.4 SOT-89 package information

Figure 39. SOT-89 package outline

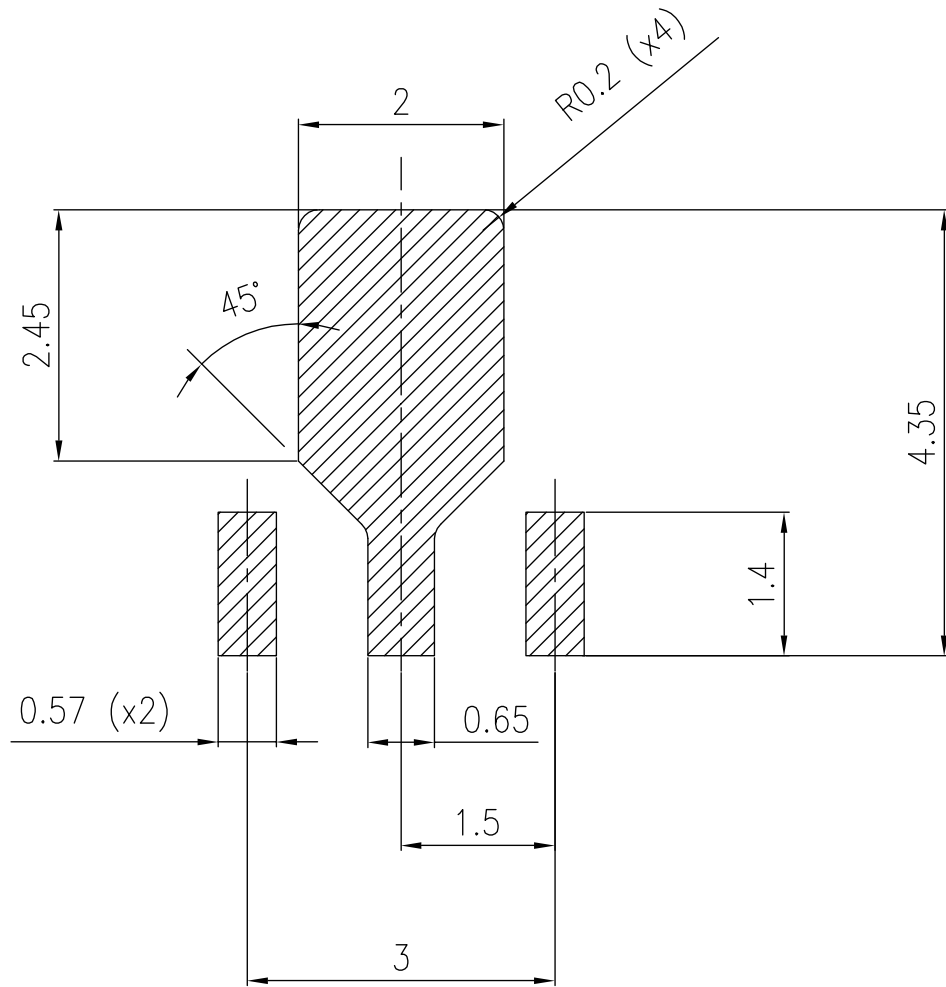


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**Table 11. SOT-89 mechanical data**

Dim.	mm		
	Min.	Typ.	Max.
A	1.40		1.60
B	0.44		0.56
B1	0.36		0.48
C	0.35		0.44
C1	0.35		0.44
D	4.40		4.60
D1	1.62		1.83
D3		0.90	
E	2.29		2.60
e	1.42		1.57
e1	2.92		3.07
H	3.94		4.25
H1	2.70		3.10
K	1°		8°
L	0.89		1.20
R		0.25	
β		90°	

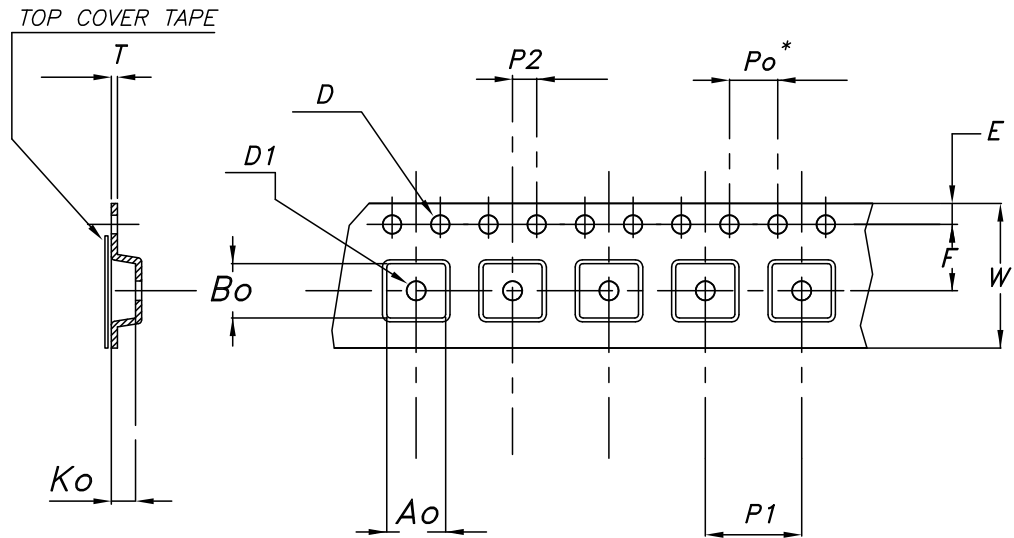
Figure 40. SOT-89 recommended footprint



Footprint

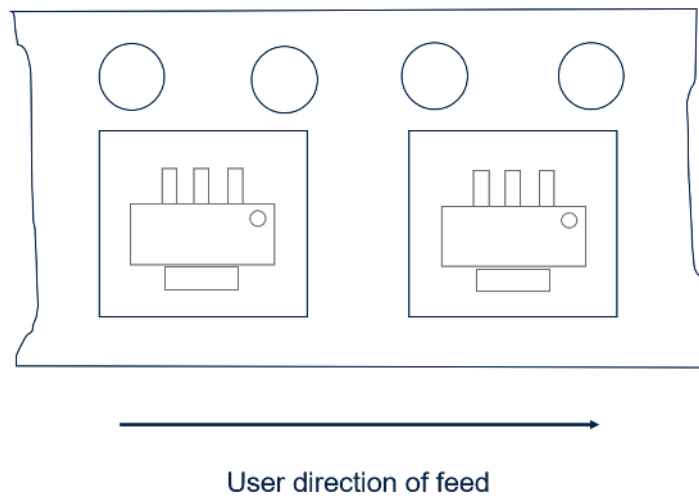
## 7.5 SOT-89 packing information

Figure 41. SOT-89 carrier tape outline



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Figure 42. SOT-89 device orientation

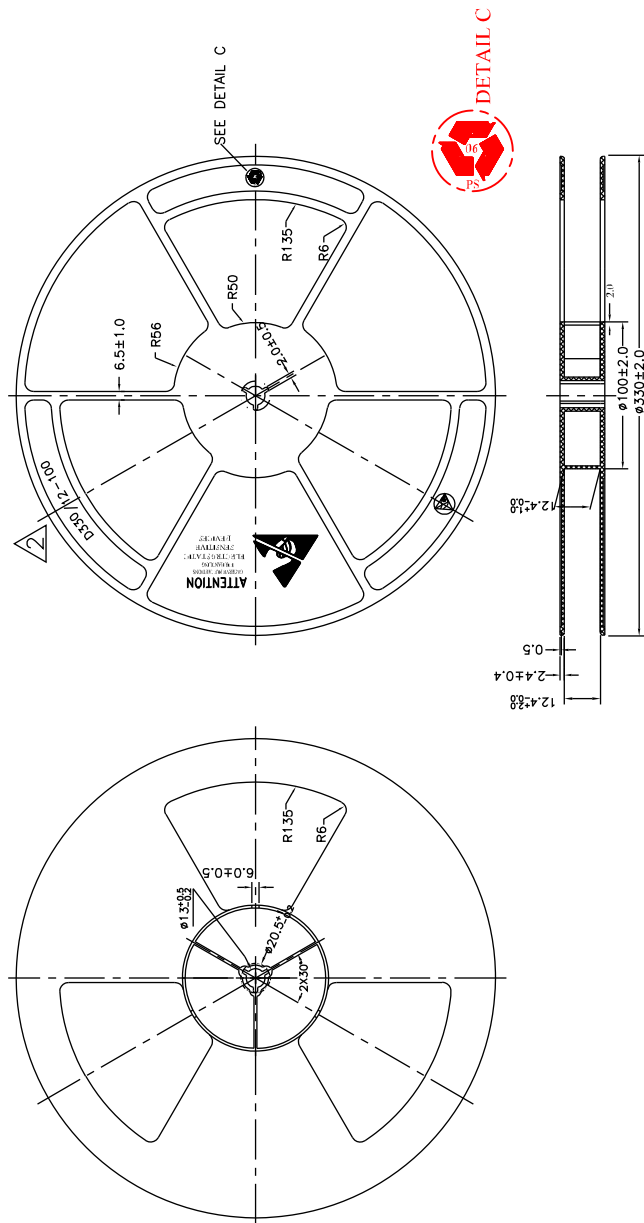




**Table 12. SOT-89 carrier tape mechanical data**

Dim.	mm	
	Value	Tolerance
Ao	4.91	± 0.10
Bo	4.52	± 0.10
Ko	1.90	± 0.10
F	5.50	± 0.10
E	1.75	± 0.10
W	12	± 0.30
P2	2	± 0.10
Po	4	± 0.10
P1	8	± 0.10
T	0.30	± 0.10
D	Ø 1.55	± 0.05
D1	Ø 1.60	± 0.10

Figure 43. SOT-89 reel drawing



## 8 Ordering information

**Table 13. Order code**

SOT23-5L	SOT-89 (D configuration)	SOT-89	Marking	Accuracy (%)	Output voltage
LDK320AM-R			ADA	0.5	ADJ
LDK320M-R			KAD	2	
LDK320AM12R <sup>(1)</sup>				0.5	1.2
LDK320M12R <sup>(1)</sup>				2	
LDK320AM15R <sup>(1)</sup>			15A	0.5	1.5
LDK320AM18R <sup>(1)</sup>			18A	0.5	1.8
LDK320M18R			K18	2	
LDK320AM25R			25A	0.5	2.5
LDK320M25R			K25	2	
LDK320AM30R			30A	0.5	3
	LDK320ADU30R		30	0.5	
LDK320M30R			K30	2	
LDK320AM33R			33A	0.5	3.3
	LDK320ADU33R		33	0.5	
LDK320M33R			K33	2	
LDK320AM36R			36A	0.5	3.6
LDK320AM50R			50A	0.5	5
	LDK320ADU50R		50	0.5	
		LDK320AU50R	E0	0.5	
LDK320M50R			K50	2	
LDK320AM120R			120A	0.5	12
	LDK320ADU120R		A2	0.5	
LDK320M120R <sup>(1)</sup>				2	

1. Available on request.

## Revision history

**Table 14. Document revision history**

Date	Revision	Changes
16-Nov-2015	1	First release.
01-Jun-2016	2	Document status promoted from preliminary data to production data. Updated title and features in cover page. Updated Section 8: "Ordering information". Minor text changes.
05-Jul-2017	3	Updated Section 8: "Ordering information". Minor text changes.
09-Oct-2018	4	Updated $\Delta V_{OUT}$ test condition in Table 6. LDK320 electrical characteristics (fixed output version). Added new order code LDK320AU50R in Table 12. Order code.
28-Oct-2019	5	Added $\Delta V_{OUT}$ for SOT-89 in Table 6. LDK320 electrical characteristics (fixed output version).
23-Jul-2020	6	Updated Figure 2. Block diagram (adjustable version).
10-Nov-2020	7	Updated Table 12. Order code.
12-Nov-2020	8	Added new Marking column in Table 13. Order code.
26-Apr-2022	9	Updated <a href="#">Section 7.2</a> Added new <a href="#">Section 7.1 SOT23-5L package information</a>

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