

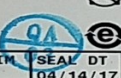
Changes from Revision F (December 2024) to Revision G (August 2026)
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• Updated legacy and new chip information throughout the document.....	1
• Removed output voltage range of the legacy chip from the <i>Features</i> section.....	1
• Changed the input regulation per input voltage change from 0.01% to 0.007% in the <i>Features</i> section to reflect new chip (CSO: RFB) specs.....	1
• Changed the typical ripple rejection at 120Hz spec from 80dB to 71.5dB in the <i>Features</i> section to reflect new chip (CSO: RFB) specs.....	1
• Removed ripple rejection at 100kHz spec from the <i>Features</i> section.....	1
• Added device package options to the <i>Features</i> section.....	1
• Updated <i>Applications</i> section.....	1
• Updated the <i>Description</i> section to reflect new chip (CSO: RFB) specs.....	1
• Changed output voltage maximum from 32V to 37V in the <i>Description</i> section to reflect new chip (CSO: RFB) specs.....	1
• Added new chip (CSO: RFB) specs to the Absolute Maximum Ratings.....	4
• Added new chip (CSO: RFB) specs to the ESD Ratings.....	4
• Added new chip (CSO: RFB) specs to the Recommended Operating Conditions.....	4
• Added new chip (CSO: RFB) specs to the Thermal Information.....	5
• Updated Thermal Information to two tables for clarity.....	5
• Added new chip (CSO: RFB) specs to the Electrical Characteristics.....	5
• Updated titles of <i>Typical Characteristics</i> graphs for legacy chip (CSO: SHE & CSO: TID).....	7
• Added <i>Typical Characteristics</i> graphs for new chip (CSO: RFB).....	7
• Updated <i>Overview</i> section to reflect new chip (CSO: RFB) specs.....	9
• Removed mention of specific output voltage range and bias current in the <i>Overview</i> section, instead added a reference the <i>Electrical Characteristics</i> table, where the specs can be found.....	9
• Updated <i>NPN Darlington Output Drive</i> with link to the <i>Recommended Operating Conditions</i>	10
• Updated <i>Operation With Low Input Voltage</i> with a link to the <i>Recommended Operating Conditions</i>	10
• Updated <i>Operation at Light Loads</i> with a link to the <i>Electrical Characteristics</i>	10
• Updated <i>Operation in Self Protection</i> for clarity.....	10
• Updated the maximum input range example value from 32V to 37V in the <i>Design Requirements</i> to reflect new chip (CSO: RFB) specs.....	11
• Updated <i>Adjustment Terminal Capacitor</i> section to mention C_{ADJ}	12
• Updated adjustment current from 50 μ A to 44 μ A in the <i>Output Voltage</i> section to reflect new chip (CSO: RFB) specs.....	12
• Changed position of <i>Input Short Protection</i> to before <i>Ripple Rejection</i> within the <i>Detailed Design Procedure</i> ..	12
• Updated <i>Ripple Rejection</i> with a link to the <i>Adjustment Terminal Capacitor</i> section.....	12
• Updated <i>Application Curve</i> to specify legacy chip performance.....	12
• Added note to <i>0V to 30V Regulator Circuit</i>	13
• Added note to <i>Slow-Turn On 15V Regulator Circuit</i>	14
• Added note to <i>Current-Limited 6V Charger</i>	15
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• Updated the maximum input voltage from 32V to 37V in the <i>Power Supply Recommendations</i> section to reflect new chip (CSO: RFB) specs.....	17
• Added a link to the <i>Recommended Operating Conditions</i> table in the <i>Power Supply Recommendations</i> section.....	17
• Updated <i>Layout Guidelines</i> to give more detailed guidance about capacitor placement.....	17
• Added SOIC layouts to the <i>Layout Example</i> section.....	17
• Updated the <i>Device Nomenclature</i> for clarity, included distinction based on CSO.....	19

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
LM317L	SLCS144F	SLCS144G	http://www.ti.com/product/LM317L

Qual details are provided in the Qual Data Section.

Reason for Change:	Supply Continuity
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Anticipated impact on Form, Fit, Function, Quality or Reliability:	• These devices include new die based on existing schematics in a larger diameter wafer fab with die shrink with new process flow • There are changes in the electrical tables • Review updated Data Sheets and Request the Supporting Data Packet for more details on the changes, Evaluating samples is encouraged																		
Impact on Environmental Ratings	Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings. <table><tr><th>RoHS</th><th>REACH</th><th>Green Status</th><th>IEC 62474</th></tr><tr><td>☒ No Change</td><td>☒ No Change</td><td>☒ No Change</td><td>☒ No Change</td></tr></table>	RoHS	REACH	Green Status	IEC 62474	☒ No Change	☒ No Change	☒ No Change	☒ No Change										
RoHS	REACH	Green Status	IEC 62474																
☒ No Change	☒ No Change	☒ No Change	☒ No Change																
Changes to product identification resulting from this PCN:	Fab Site Information <table><tr><th>Chip Site</th><th>Chip Site Origin Code (20L)</th><th>Chip Site Country Code (21L)</th><th>Chip Site City</th></tr><tr><td>FFAB</td><td>TID</td><td>DEU</td><td>Freising</td></tr><tr><td>RFAB</td><td>RFB</td><td>USA</td><td>Richardson</td></tr></table> Die Rev: <table><tr><th>Current</th><th>New</th></tr><tr><td>Die Rev [2P]</td><td>Die Rev [2P]</td></tr><tr><td>C</td><td>A</td></tr></table> Sample product shipping label (not actual product label): TEXAS INSTRUMENTS MADE IN: China ZDC: 2Q MSL 1 / 260C / UNLIM OPT: ITEM: 73 LBL: 1A (L)T0:1168  04/14/17 (1P)PTAS2560YFFR (Q) 3000 (D) 1710 (31T)LOT: 7133710JCP (4W) SWR (1T) 2855550Z9A (P) (2P) REV: AO (V) 0033317 (20L) CS0: DM6 (21L) CC0:USA (22L) AS0: JCP (23L) AC0: CHN	Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City	FFAB	TID	DEU	Freising	RFAB	RFB	USA	Richardson	Current	New	Die Rev [2P]	Die Rev [2P]	C	A
Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City																
FFAB	TID	DEU	Freising																
RFAB	RFB	USA	Richardson																
Current	New																		
Die Rev [2P]	Die Rev [2P]																		
C	A																		

Products Affected:			
LM317LCPK	LM317LCPKG3	LM317LIPK	LM317LIPKG3

Qualification Report
LM317L PK package
Approve Date 04-AUGUST -2026

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	#	Test Name	Condition	Duration	Qual Device: LM317LCPK	QBS Process Reference: MC33063ADR	QBS Process Reference: MC33063ADR	QBS Package, Process Reference: UA78L15ACPKM3
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	3/240/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/240/0
TC	A4	Temperature Cycle	-65C/150C	1000 Cycles	-	-	-	3/240/1 ¹
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	1/77/0	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/240/0
HTOL	B1	Life Test	125C	1000 Hours	-	2/154/0	1/77/0	3/240/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	1/800/0	2/1600/0	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	-	1/22/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	-

Type	#	Test Name	Condition	Duration	Qual Device: LM317LCPK	QBS Process Reference: MC33063ADR	QBS Process Reference: MC33063ADR	QBS Package, Process Reference: UA78L15ACPKM3
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device LM317LCPK is qualified at MSL2 260C

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

TI Qualification ID: R-NPD-2511-050

[1]-EIPD event
refer to 4C Report

In performing change qualifications, Texas Instruments follows integrated circuit industry standards in performing defect mechanism analysis and failure mechanism-based accelerated environmental testing to ensure wafer fab process, assembly process and product quality and reliability. As encouraged by these standards, TI uses both product-specific and generic (family) data in qualifying its changes. For devices to be categorized as a 'product qualification family' for generic data purposes, they must share similar product, wafer fab process and assembly process elements. The applicability of generic data (also known at TI as Qualification by Similarity (QBS)) is determined by the Reliability Engineering function following these industry standards. Generic data is shown in the qualification report in columns titled "QBS Process" (for wafer fab process), "QBS Package" (for assembly process) and "QBS Product" (for product family).

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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