

Table of Contents

1 Features	1	8.4 Device Functional Modes.....	15
2 Applications	1	9 Application and Implementation	16
3 Description	1	9.1 Application Information.....	16
4 Revision History	2	9.2 Typical Application	16
5 Device Comparison Table	3	9.3 System Example	27
6 Pin Configuration and Functions	4	10 Power Supply Recommendations	28
7 Specifications	6	11 Layout	28
7.1 Absolute Maximum Ratings	6	11.1 Layout Guidelines	28
7.2 ESD Ratings.....	6	11.2 Layout Example	28
7.3 Recommended Operating Conditions.....	6	12 Device and Documentation Support	30
7.4 Thermal Information	6	12.1 Device Support.....	30
7.5 Electrical Characteristics.....	7	12.2 Support Resources	30
7.6 Typical Characteristics	9	12.3 Trademarks	30
8 Detailed Description	11	12.4 Electrostatic Discharge Caution.....	30
8.1 Overview	11	12.5 Glossary	30
8.2 Functional Block Diagram	11	13 Mechanical, Packaging, and Orderable Information	30
8.3 Feature Description.....	12		

4 Revision History

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Changes from Revision C (November 2019) to Revision D	Page
• Updated the Device Comparison Table	3
• Added efficiency graphs to the Application Curves	20

Changes from Revision B (August 2019) to Revision C	Page
• Added SON-8, WCSP-6, and thermally enhanced HVSSOP-8 to Features	1
• Added ATEX / Intrinsic safety to Applications	1
• Updated Typical Application image to show TPS62842DGR device	1
• Added orderable part number TPS62841DGR to Device Comparison Table	3
• Added orderable part number TPS62842DGR to Device Comparison Table	3
• Updated Thermal Information values to support TPS62842DGR	6
• Added low-side MOSFET switch current limit to Electrical Characteristics	8
• Added TPS62841DGR to Output Voltage Selection	13
• Updated Efficiency Power Save graphs in Application Curves	20
• Updated Load Transient waveform in Application Curves	24
• Added PCB layout for DGR package	29

Changes from Revision A (July 2019) to Revision B	Page
• Changed Advance Information marketing status to Production Data	1

5 Device Comparison Table

ORDERABLE PART NUMBER	OUTPUT VOLTAGE	OUTPUT CURRENT	OUTPUT DISCHARGE	MODE PIN	STOP PIN	PACKAGE	PACKAGE MARKING
TPS62840DLC	1.8 V to 3.3 V in 100-mV steps	750 mA	yes	yes	yes	SON-8 (DLC)	E5
TPS62840YBG				no	no	WCSP-6 (YBG)	62840
TPS62841DLC	0.8 V to 1.55 V in 50-mV steps	750 mA	yes	yes	yes	SON-8 (DLC)	E9
TPS62841YBG				no	no	WCSP-6 (YBG)	62841
TPS62841DGR				yes	no	HVSSOP-8 (DGR)	62841
TPS62842DGR	1.8 V, 2.0 V, 2.2 V, 2.4 V to 3.6 V in 100-mV steps	750 mA	yes	yes	no	HVSSOP-8 (DGR)	62842
TPS62849DLC	3.4-V fixed output voltage				yes	SON-8 (DLC)	FF