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# Product Information Notification



Product Group: SIL/Saturday December 20, 2025/PIN-SIL-000503-2025-REV-0

## SiC967 Datasheet Update

For further information, please contact your regional Vishay office.

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**Description of Change:** 1. All the references to ""Ultrasonic"" are removed

2. Fig 5 is updated (with ultrasonic signal removed)

3. Fig 10 is updated due to some error"

**Reason for Change:** SiC967 does not support Ultrasonic operating mode

**Expected Influence on Quality/Reliability/Performance:** There will be no effect on performance, quality or reliability.

**Part Numbers/Series/Families Affected:** SIC967ED-T1-GE3, SIC967ED-Y1-GE3,

**Vishay Brand(S):** Vishay Siliconix

#### Time Schedule:

Start Shipment Date: Tuesday January 20, 2026

**Sample Availability:** Samples are available now

**Product Identification:** Lot Number

**Qualification Data:** Available upon Request

**Issued By:** Lisette Saba, malinalisette.saba@vishay.com



PIN-SIL-000503-2025-REV-0

# **Data Sheet comparison**

**December 2025**



## Data Sheet of SIC967

## Previous Datasheet (Rev. C)

## TYPICAL APPLICATION CIRCUIT

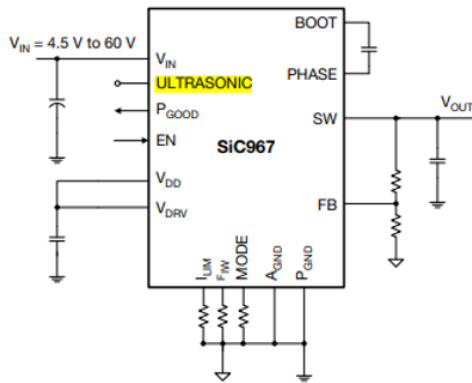


Fig. 1 - Typical Application Circuit

## Updated Datasheet (Rev. D)

## TYPICAL APPLICATION CIRCUIT

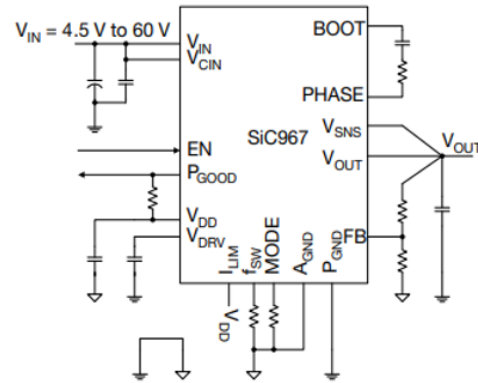


Fig. 1 - Typical Application Circuit

## FEATURES

- Versatile
  - Single supply operation from 4.5 V to 60 V input voltage
  - Adjustable output voltage down to 0.8 V
  - Output voltage tracking and sequencing with pre-bias start up
  - $\pm 1\%$  output voltage accuracy at  $-40^\circ\text{C}$  to  $+125^\circ\text{C}$
- Internal compensation
- Highly efficient
  - 95 % peak efficiency
  - 4  $\mu\text{A}$  supply current at shutdown
  - 100  $\mu\text{A}$  operating current not switching
- Highly configurable
  - Adjustable switching frequency from 100 kHz to 2 MHz
  - Fixed soft start and selectable preset 100 %, 75 %, and 50 % current limit
  - 3 modes of operation, forced continuous conduction, power save or **ultrasonic**
- Robust and reliable



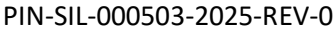
## FEATURES

- Versatile
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- Highly efficient
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  - 4  $\mu\text{A}$  supply current at shutdown
  - 100  $\mu\text{A}$  operating current not switching
- Highly configurable
  - Adjustable switching frequency from 100 kHz to 2 MHz
  - Fixed soft start and selectable preset 100 %, 75 %, and 50 % current limit
  - 2 operating modes: FPWM or power save
- Robust and reliable

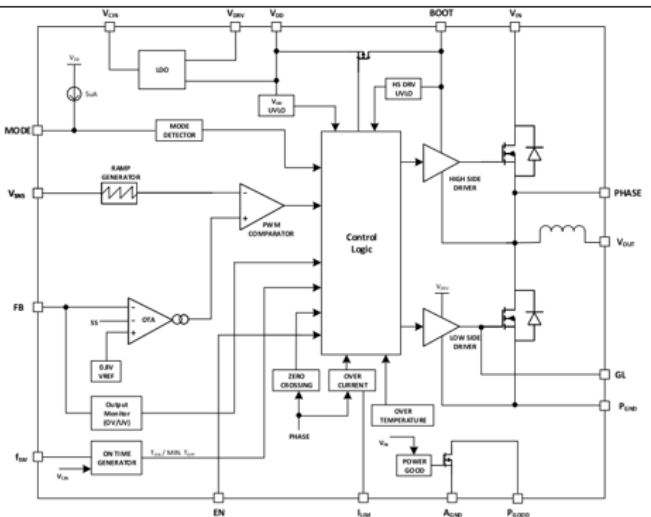


ELECTRICAL SPECIFICATIONS ( $V_{IN} = V_{CIN} = 48\text{ V}$ , $T_J = -40^\circ\text{C}$ to $+125^\circ\text{C}$ , unless otherwise stated)						
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Power Supplies						
V <sub>DD</sub> supply	V <sub>DD</sub>	$V_{IN} = V_{CIN} = 6\text{ V to }60\text{ V}$ , $V_{EN} = 5\text{ V}$ , not switching	4.5	5	5.35	V
V <sub>DD</sub> dropout	V <sub>DD, DROPOUT</sub>	$V_{IN} = V_{CIN} = 5\text{ V}$ , $V_{EN} = 5\text{ V}$ , not switching	-	100	-	mV
V <sub>DD</sub> UVLO threshold, rising	V <sub>DD, UVLO</sub>		3.5	3.8	4.1	V
V <sub>DD</sub> UVLO hysteresis	V <sub>DD, UVLO, HYST</sub>		-	300	-	mV
Input current	I <sub>CIN</sub>	Non-switching, $V_{FB} > 0.8\text{ V}$	-	-	250	$\mu\text{A}$
Shutdown current	I <sub>CIN, SHDN</sub>	$V_{EN} = 0\text{ V}$	-	4	8	$\mu\text{A}$
Controller and Timing						
Feedback voltage	V <sub>FB</sub>	$T_J = 25^\circ\text{C}$	796	800	804	mV
V <sub>FB</sub> input bias current	I <sub>FB</sub>	$T_J = -40^\circ\text{C}$ to $+125^\circ\text{C}$ (1)	-	16	-	nA
Minimum on-time	t <sub>ON, MIN</sub>		-	45	100	ns
t <sub>ON</sub> accuracy	t <sub>ON, ACCURACY</sub>		-10	-	10	%
On-time range	t <sub>ON, RANGE</sub>		100	-	8000	ns
Frequency range	f <sub>sw</sub>	Ultrasonic mode enabled	20	-	-	kHz
		Ultrasonic mode disabled	-	-	-	
Minimum off-time	t <sub>OFF, MIN</sub>		-	300	-	ns
Soft start current (1)	I <sub>SS</sub>		-	3.5	-	$\mu\text{A}$
Zero crossing detection point (1)	ZCD	LX-P <sub>GD</sub>	-3	-	3	mV

ELECTRICAL SPECIFICATIONS ( $V_{IN} = V_{CIN} = 48\text{ V}$ , $T_J = -40^\circ\text{C}$ to $+125^\circ\text{C}$ , unless otherwise stated)						
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Power Supplies						
V <sub>DD</sub> supply	V <sub>DD</sub>	$V_{IN} = V_{CIN} = 6\text{ V to }60\text{ V}$ , $V_{EN} = 5\text{ V}$ , not switching	4.5	5	5.35	V
V <sub>DD</sub> dropout	V <sub>DD, DROPOUT</sub>	$V_{IN} = V_{CIN} = 5\text{ V}$ , $V_{EN} = 5\text{ V}$ , not switching	-	100	-	mV
V <sub>DD</sub> UVLO threshold, rising	V <sub>DD, UVLO</sub>		3.5	3.8	4.1	V
V <sub>DD</sub> UVLO hysteresis	V <sub>DD, UVLO, HYST</sub>		-	300	-	mV
Input current	I <sub>CIN</sub>	Non-switching, $V_{FB} > 0.8\text{ V}$	-	-	250	$\mu\text{A}$
Shutdown current	I <sub>CIN, SHDN</sub>	$V_{EN} = 0\text{ V}$	-	4	8	$\mu\text{A}$
Controller and Timing						
Feedback voltage	V <sub>FB</sub>	$T_J = 25^\circ\text{C}$	796	800	804	mV
V <sub>FB</sub> input bias current	I <sub>FB</sub>	$T_J = -40^\circ\text{C}$ to $+125^\circ\text{C}$ (1)	-	16	-	nA
Minimum on-time	t <sub>ON, MIN</sub>		-	45	100	ns
t <sub>ON</sub> accuracy	t <sub>ON, ACCURACY</sub>		-10	-	10	%
On-time range	t <sub>ON, RANGE</sub>		100	-	8000	ns
Minimum off-time	t <sub>OFF, MIN</sub>		-	300	-	ns
Soft start current (1)	I <sub>SS</sub>		-	3.5	-	$\mu\text{A}$
Zero crossing detection point (1)	ZCD	LX-P <sub>GD</sub>	-3	-	3	mV



EN / MODE / Threshold					
EN logic high level	$V_{EN\_H}$		1.2	1.4	1.5
EN logic low level	$V_{EN\_L}$		1.00	1.12	1.25
EN logic hysteresis	$V_{EN\_HYS}$		200	280	360
EN pull down resistance	$R_{EN}$		-	5	-
Mode pull up current	$I_{MODE}$		-	5	-
Mode 1	$R_{MODE}$	Power save mode enabled, $V_{DD\_VDDIV}$ pre-reg on	-	2	-
Mode 2		Power save mode disabled, $V_{DD\_VDDIV}$ pre-reg on	-	301	-
Mode 3		Power save mode disabled, $V_{DDIV}$ pre-reg off, $V_{DD}$ pre-reg on, provide external $V_{DDIV}$	-	499	-
Mode 4		Power save mode enabled, $V_{DDIV}$ pre-reg off, $V_{DD}$ pre-reg on, provide external $V_{DDIV}$	-	1000	-
<b>Soft Start</b>					
Soft start timing <sup>(1)</sup>			-	6	-



**Fig. 5 - Functional Block Diagram**

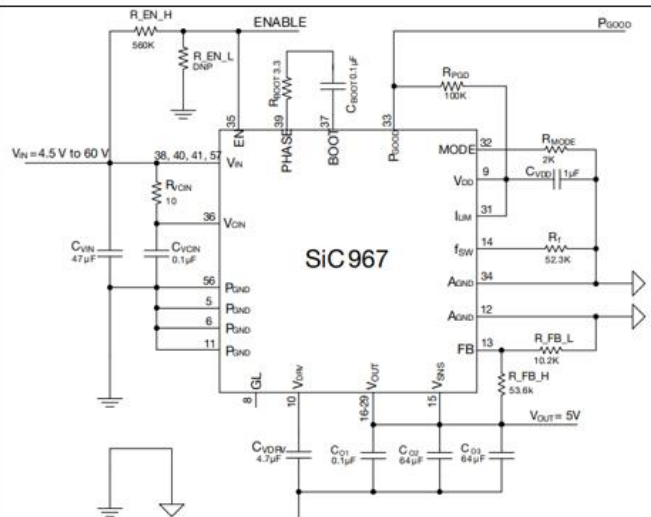


Fig. 10 - Configured for 4.5 V to 60 V Input, 5 V Output at 6 A, 500 kHz Operation With Power Save Mode Enabled  
all Ceramic Output Capacitance Design