

ADVISORY PRODUCT CHANGE NOTICE

Product Group: Vishay Siliconix/ February 25th, 2022 - APCN-SIL-5022022

DG2002E Datasheet Changes

DESCRIPTION OF CHANGE: On resistance test limit changes on the analog switch channel to better represents the product characteristics. There is no design, BOM, or manufacture process change.

Switch max resistance limits at 4.5V, 2.2V and 1.8V V+ power conditions are updated as below:

Part		V+=4.5V, Vcom=3V, Ino/nc=10mA V+=2.2V, Vcom=1.0V, Ino/nc=10mA V+=1.8V, Vcom=1.0V, Ino/nc=10mA						
Number		Current Limit	Updated Limit	Current Limit	Updated Limit	Current Limit	Updated Limit	Units
DG9411E	Room Temp	8	9	27	29.5	42	45	Ohm
	Full Temp	10	11	28	30.5	44	47	Unin

CLASSIFICATION OF CHANGE: Datasheet

REASON FOR CHANGE: Updated limits more accurately present product resistance characteristics.

EXPECTED INFLUENCE ON PERFORMANCE/QUALITY/RELIABILTY: There will be no effect on performance, quality, or reliability.

PRODUCT CATAGORY: ICs

PART NUMBERS AFFECTED: DG2002EDL-T1-GE3

VISHAY BRAND(s): Vishay-Siliconix

TIME SCHEDULE: Immediately, Feb 25, 2022

SAMPLE AVAILABILITY: Samples available immediately

QUALIFICATION DATA: Additional data available upon request.

This APCN is for notification purposes only. Your response is not required. If you have any questions, please contact your local Vishay Sales Office.

ISSUED BY: Isabelle Ciacchella, Vishay Siliconix IC Product Marketing. E-mail address: <u>isabelle.ciacchella@Vishay.com</u>

For further information, please contact your regional Vishay office.

The Americas Vishay Americas 2585 Junction Avenue San Jose, CA 95134 T: 408-970-8000 F: 408-567-8942 business-americas@vishay.com Europe Vishay Electronic GmbH Geheimrat-Rosenthal-Strasse 100 D-95100 Selb, Germany T: 49-9287-71 0 Europe@vishay.com

Asia

Vishay Intertechnology Asia Pte. Ltd 25 Tampines Street 92 #02-00 Keppel Building Singapore 528877 T: 65-6788-6668 business-asia@vishay.com

Vishay Intertechnology, Inc.

Corporate Headquarters 63 Lincoln Highway, Malvern, PA 19355-2143 U.S.A. Phone (610) 644-1300 Fax (610) 296-0657 www.vishay.com

ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENT

ADVISORY PRODUCT CHANGE NOTICE



Product Group: Vishay Siliconix/ February 25th, 2022 - APCN-SIL-5022022

SIC461/2/3/4 Datasheet - Doc#65124

Revision O – March 2021

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT	
Power Supplies							
V supply	V	$V_{IN} = V_{CIN} = 6 V \text{ to } 60 V$	4.75	5	5.25	v	
V _{DD} supply	V _{DD}	$V_{IN} = V_{CIN} = 5 V$	4.7	5	-	v	
V _{DD} dropout	V _{DD_DROPOUT}	$V_{IN} = V_{CIN} = 5 V$, $I_{VDD} = 1 mA$	÷	70	1	mV	
V _{DD} UVLO threshold, rising	V _{DD_UVLO}		4	4.25	4.5	V	
V _{DD} UVLO hysteresis	V _{DD_UVLO_HYST}		-	225	-	mV	
Maximum V _{DD} current	IDD	$V_{IN} = V_{CIN} = 6 V \text{ to } 60 V$	3	1443	141	mA	
N	V _{DRV}	$V_{IN} = V_{CIN} = 6 V \text{ to } 60 V$	5.1	5.3	5.55	v	
V _{DRV} supply		$V_{IN} = V_{CIN} = 5 V$	4.8	5	5.2	v	
V _{DRV} dropout	V _{DRV_DROPOUT}	$V_{IN} = V_{CIN} = 5 \text{ V}, I_{VDD} = 10 \text{ mA}$	-	160		mV	
Maximum V _{DRV} current	V _{DRV}	$V_{IN} = V_{CIN} = 6 V \text{ to } 60 V$	50		(72)	mA	
VDRV UVLO threshold, rising	V _{DRV_UVLO}		4	4.25	4.5	V	
V _{DRV} UVLO hysteresis	VDRV_UVLO_HYST		-	295	-	mV	
Input current	IVCIN	Non-switching, V _{FB} > 0.8 V	-	235	325		
Shutdown current	IVGIN SHDN	$V_{EN} = 0 V$	-	4	8	μΑ	

Revision P – November 2021

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Power Supplies						
V supply	V	$V_{IN} = V_{CIN} = 6 V \text{ to } 60 V$	4.75	5	5.25	V
V _{DD} supply	V _{DD}	$V_{IN} = V_{CIN} = 5 V$	4.7	5	5	
V _{DD} dropout	V _{DD_DROPOUT}	$V_{IN} = V_{CIN} = 5 \text{ V}, I_{VDD} = 1 \text{ mA}$	(<u>2</u>)	70	÷	mV
V _{DD} UVLO threshold, rising	V _{DD_UVLO}		4	4.25	4.5	V
V _{DD} UVLO hysteresis	V _{DD_UVLO_HYST}		-	225	π.	mV
Maximum V _{DD} current	I _{DD}	$V_{IN} = V_{CIN} = 6 V \text{ to } 60 V$	3	1.7		mA
V supply	V _{DRV}	V _{IN} = V _{CIN} = 6 V to 60 V	4.75	5.3	5.55	v
V _{DRV} supply		$V_{IN} = V_{CIN} = 5 V$	4.8	5	5.2	V
V _{DRV} dropout	V _{DRV_DROPOUT}	$V_{IN} = V_{CIN} = 5$ V, $I_{VDD} = 10$ mA	-	160	+	mV
Maximum V _{DRV} current	V _{DRV}	$V_{IN} = V_{CIN} = 6 V \text{ to } 60 V$	30	1377		mA
V _{DRV} UVLO threshold, rising	V _{DRV_UVLO}		4	4.25	4.5	V
V _{DRV} UVLO hysteresis	V _{DRV_UVLO_HYST}		5#3	295	-	mV
Input current	I _{VCIN}	Non-switching, V _{FB} > 0.8 V		235	325	
Shutdown current	IVCIN_SHDN	$V_{EN} = 0 V$	270	4	8	μA

Vishay Intertechnology, Inc.

Corporate Headquarters 63 Lincoln Highway, Malvern, PA 19355-2143 U.S.A. Phone (610) 644-1300 Fax (610) 296-0657 www.vishay.com

ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENT

ADVISORY PRODUCT CHANGE NOTICE



Product Group: Vishay Siliconix/ February 25th, 2022 - APCN-SIL-5022022

SIC471/2/3/4 Datasheet - Doc#75786

Revision F – March 2021

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Power Supplies						
V - eventy	V _{DD}	$V_{IN} = V_{CIN} = 6 V \text{ to } 55 V$	4.75	5	5.25	v
V _{DD} supply		$V_{IN} = V_{CIN} = 5 V$	4.7	5	Ξ.	v
V _{DD} dropout	VDD_DROPOUT	$V_{IN} = V_{CIN} = 5 V$, $I_{VDD} = 1 mA$		70	3	mV
V _{DD} UVLO threshold, rising	V _{DD_UVLO}		4	4.25	4.5	V
V _{DD} UVLO hysteresis	V _{DD_UVLO_HYST}		-	225	2	mV
Maximum V _{DD} current	IDD	$V_{IN} = V_{CIN} = 6 V \text{ to } 55 V$	3	-	14	mA
V - outpile	VDRV	$V_{IN} = V_{CIN} = 6 V \text{ to } 55 V$	5.1	5.3	5.55	v
V _{DRV} supply		$V_{IN} = V_{CIN} = 5 V$	4.8	5	5.2	v
V _{DRV} dropout	VDRV_DROPOUT	$V_{IN} = V_{CIN} = 5 \text{ V}, I_{VDD} = 10 \text{ mA}$		160	2	mV
Maximum V _{DRV} current	V _{DRV}	$V_{IN} = V_{CIN} = 6 V \text{ to } 55 V$	50	-	14	mA
VDRV UVLO threshold, rising	V _{DRV_UVLO}		4	4.25	4.5	V
V _{DRV} UVLO hysteresis	V _{DRV_UVLO_HYST}		12	295	-	mV
Input current	IVCIN	Non-switching, V _{FB} > 0.8 V	-	235	325	
Shutdown current	IVCIN SHDN	$V_{EN} = 0 V$	-	4	8	μA

Revision G – November 2021

ELECTRICAL SPECIFICATIONS (VIN = VCIN = 48 V, VEN = 5 V, TJ = -40 °C to +125 °C, unless otherwise stated)							
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT	
Power Supplies							
V oupply	M	$V_{IN} = V_{CIN} = 6 V \text{ to } 55 V$	4.75	5	5.25	v	
V _{DD} supply	V _{DD}	$V_{IN} = V_{CIN} = 5 V$	4.7	5	-	1 V	
V _{DD} dropout	VDD_DROPOUT	$V_{IN} = V_{CIN} = 5 \text{ V}, I_{VDD} = 1 \text{ mA}$		70	-	mV	
V _{DD} UVLO threshold, rising	V _{DD_UVLO}		4	4.25	4.5	V	
V _{DD} UVLO hysteresis	V _{DD_UVLO_HYST}			225	-	mV	
Maximum V _{DD} current	I _{DD}	$V_{IN} = V_{CIN} = 6 V$ to 55 V	3			mA	
V gupph	V	$V_{IN} = V_{CIN} = 6 V \text{ to } 55 V$	4.75	5.3	5.55	v	
V _{DRV} supply	V _{DRV}	$V_{IN} = V_{CIN} = 5 V$	4.8	5	5.2	v	
V _{DRV} dropout	VDRV_DROPOUT	$V_{IN} = V_{CIN} = 5 \text{ V}, I_{VDD} = 10 \text{ mA}$	-	160	-	mV	
Maximum V _{DRV} current	VDRV	$V_{IN} = V_{CIN} = 6 \text{ V to 55 V}$	30	35	=	mA	
V _{DRV} UVLO threshold, rising	V _{DRV_UVLO}		4	4.25	4.5	V	
V _{DRV} UVLO hysteresis	V _{DRV_UVLO_HYST}		100	295		mV	
Input current	IVCIN	Non-switching, V _{FB} > 0.8 V	-	235	325		
Shutdown current	IVCIN_SHDN	V _{EN} = 0 V	2000	4	8	μA	

Vishay Intertechnology, Inc.

Corporate Headquarters 63 Lincoln Highway, Malvem, PA 19355-2143 U.S.A. Phone (610) 644-1300 Fax (610) 296-0657 www.vishay.com

ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENT