Product Change Notification

Product Group: SIL/Wed Nov 23, 2022/PCN-SIL-000407-2022-REV-0

DG9424/5/6E Datasheet Update

DESCRIPTION OF CHANGE: Change of Turn-on time Full temp Max limit specification for 3V Single supply from 193 ns to 230 ns

REASON FOR CHANGE: Update limits more accurately

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

PART NUMBERS/SERIES/FAMILIES AFFECTED: DG9424EDN-T1-GE4, DG9424EDQ-T1-GE3, DG9425EDQ-T1-GE3, DG9426EDQ-T1-GE3,

VISHAY BRAND(s): Vishay Siliconix

TIME SCHEDULE:

Start Shipment Date: Mon Jan 23, 2023

SAMPLE AVAILABILITY: Now: 11/23/22

PRODUCT IDENTIFICATION: Date Code from 9/1/22

QUALIFICATION DATA: Comparison Data Attached

This PCN is considered approved, without further notification, unless we receive specific customer concerns before Mon Jan 23, 2023 or as specified by contract.

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DG9424E/9425E/9426E Datasheet revision Comparison

DG9424E, DG9425E, DG9426E Datasheet – Doc#75770

Revision C – June 2020

SPECIFICATIONS [a] Single Supply 3 V							
PARAMETER	SYMBOL	TEST CONDITIONS UNLESS OTHERWISE SPECIFIED V+ = 3 V, V- = 0 V V_L = 3 V, V_{IN} = 2.4 V, 0.4 V [f]	TEMP.[b]	LIMITS -40 °C to +85 °C MIN. [d]	TYP. [c]	MAX. [d]	UNIT
Analog Switch							
Analog signal range [e]	V_{ANALOG}		Full	0	-	3	V
On-resistance	R_{ON}	V+ = 2.7 V, V- = 0 V. I_{NO}, I_{NC} = 5 mA, V_{COM} = 0.5, 2.2 V	Room	-	6	-	Ω
			Full	-	-	-	
Switch off leakage current [a]	$I_{NO(off)}$	V+ = 3.3 V, V- = 0 V. V_{COM} = 0.3, 3 V, V_{NO}, V_{NC} = 3, 0.3 V	Room	-1	-	1	nA
	$I_{NC(off)}$		Full	-10	-	10	
	$I_{COM(off)}$		Room	-1	-	1	
			Full	-10	-	10	
Channel on leakage current [a]	$I_{COM(on)}$	V+ = 3.3 V, V- = 0 V, V_{NO}, V_{NC} = V_{COM} = 0.3, 3 V	Room	-1	-	1	
			Full	-10	-	10	
Digital Control [e]							
Input current	I_{INL} or I_{INH}		Full	-1	0.005	1	µA
Dynamic Characteristics							
Turn-on time	t_{ON}	R_L = 300 Ω, C_L = 35 pF. V_{NO}, V_{NC} = 1.5 V, see Fig. 2	Room	-	140	-	ns
			Full	-	-	193	
Turn-off time	t_{OFF}		Room	-	65	-	
			Full	-	-	89	

Revision D – October 2022

SPECIFICATIONS [a] Single Supply 3 V							
PARAMETER	SYMBOL	TEST CONDITIONS UNLESS OTHERWISE SPECIFIED V+ = 3 V, V- = 0 V V_L = 3 V, V_{IN} = 2.4 V, 0.4 V [f]	TEMP.[b]	LIMITS -40 °C to +85 °C MIN. [d]	TYP. [c]	MAX. [d]	UNIT
Analog Switch							
Analog signal range [e]	V_{ANALOG}		Full	0	-	3	V
On-resistance	R_{ON}	V+ = 2.7 V, V- = 0 V. I_{NO}, I_{NC} = 5 mA, V_{COM} = 0.5, 2.2 V	Room	-	6	-	Ω
			Full	-	-	-	
Switch off leakage current [a]	$I_{NO(off)}$	V+ = 3.3 V, V- = 0 V. V_{COM} = 0.3, 3 V, V_{NO}, V_{NC} = 3, 0.3 V	Room	-1	-	1	nA
	$I_{NC(off)}$		Full	-10	-	10	
	$I_{COM(off)}$		Room	-1	-	1	
			Full	-10	-	10	
Channel on leakage current [a]	$I_{COM(on)}$	V+ = 3.3 V, V- = 0 V, V_{NO}, V_{NC} = V_{COM} = 0.3, 3 V	Room	-1	-	1	
			Full	-10	-	10	
Digital Control [e]							
Input current	I_{INL} or I_{INH}		Full	-1	0.005	1	µA
Dynamic Characteristics							
Turn-on time	t_{ON}	R_L = 300 Ω, C_L = 35 pF. V_{NO}, V_{NC} = 1.5 V, see Fig. 2	Room	-	170	-	ns
			Full	-	-	230	
Turn-off time	t_{OFF}		Room	-	65	-	
			Full	-	-	89	