



Product Change Notification



Product Group: DD/Thu Jun 16, 2022/PCN-DD-013-2022-REV-0

Additional wafer fab on Super TO-247 thyristors products

DESCRIPTION OF CHANGE: Vishay Semiconductors announces the qualification of an additional Vishay owned Wafer Fab using 5" wafer technology which includes adaptations in diffusion processes and mask process and layout.

REASON FOR CHANGE: Additional wafer fab capacity and security of supply.

EXPECTED INFLUENCE ON QUALITY/RELIABILITY/PERFORMANCE: There will be no effect on quality, reliability, or electrical/thermal performances.

PART NUMBERS/SERIES/FAMILIES AFFECTED: VS-70TPS12PBF, VS-70TPS16PBF,

VISHAY BRAND(s): Vishay Semiconductors

TIME SCHEDULE:

Start Shipment Date: Tue Aug 23, 2022

SAMPLE AVAILABILITY: Available on customer request

PRODUCT IDENTIFICATION: N/A

QUALIFICATION DATA: Qualification data available in annex 1 of this PCN

This PCN is considered approved, without further notification, unless we receive specific customer concerns before Mon Aug 22, 2022 or as specified by contract.

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For further information, please contact your regional Vishay office.

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ANNEX 1 - Qual Data: bondable thyristors



Environmental Test Summary

Request Part Number		VS-70TPS16PBF
	Package	TO-247
	FAB	VOE

Package Qualification:	Requested	TO-247	
Metalization		Al	
Die attach		65Sn25Ag10Sb	
PACKAGE PROCESS USED		VS-16TTS12PBF	TO-220
		VS-40TPS12PBF	TO-247
		VS-70TPS16PBF	Super TO-247

FAB PROCESS:	Requested	Thyristor (SCR)	
FAB PROCESS USED		VS-16TTS12PBF	SCR
		VS-40TPS12PBF	SCR
		VS-70TPS16PBF	SCR

Test Item & Condition	Duration	VS-16TTS12PBF	VS-40TPS12PBF	VS-70TPS16PBF
HTRB	Condition			
TjMax @80% Vrm	168 Hrs	0/77	0/77	0/77
	500 Hrs	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77
ESD Test (HBM)	1KV			
	2KV		0/10	0/10
	4KV		0/10	0/10
Solderability @245°C/5sec	Post	0 / 10	0 / 10	0 / 10
Temperature Cycling	Condition			
@-55°C / +150°C / 30min.	250 Cycles	0/77	0/77	0/77
	500 Cycles	0/77	0/77	0/77
	1000 Cycles	0/77	0/77	0/77
UHAST	Condition			
@Ta= 130°C , 85%R.H.	48 Hrs	0/77	0/77	0/77
	96 Hrs	0/77	0/77	0/77
IOL	Condition			
Delta Tj=100°C T0n/Toff >= 2min	500 Hrs	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77
H3TRB	Condition			
85°C 85% HR @ 100V	168 Hrs	0/77	0/77	0/77
	500 Hrs	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77
HTS	Condition			
Tjmax	168 Hrs	0/77	0/77	0/77
	500 Hrs	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77
LTS	Condition			
Tjmin	168 Hrs	0/77	0/77	0/77
	500 Hrs	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77

For Lab D. R.

PREPARE BY VSI REL LAB