



Company Profile







The field of market technology research in 2023 covers semiconductors, electric vehicles, panels, computers, mobile phones, servers, key components, etc., as well as artificial intelligence (AI), Internet of Things (IoT), 5G communications, Industry 4.0, and digital transformation Smart applications such as discrete semiconductor components will play an even more important role in these fields, playing a complementary role with highend integrated circuits. The power supply of integrated circuits needs to be supplied by discrete components, and the safety regulations of integrated circuits must be separated It is completed by discrete components, and the data transmission security of integrated circuits must be controlled by discrete components.

Under the torrent of technology, FORMOSA has never stopped innovating and serving. In 2023, FORMOSA's discrete component products will provide: semiconductor components for power applications, safety equipment, audio-visual media, automotive semiconductors, servers, and computers.

In addition to providing separate components and related information, the FOMOSA service project is expected to provide customers with long-running data acquisition services for products in mid-2023. The content will depart from traditional reliability testing methods and use Large amounts of data It will display the voltage, current, temperature, thermal resistance, time, consumption, interpretation, comparison, and early warning functions of components. This service will be the first in the industry. It will assist the customer's R&D department with an important basis for component material selection.

In addition to integrating into this family of technology industry, FORMOSA also hopes to provide more enthusiastic services to help improve Taiwan's technology industry and global competitiveness as its corporate purpose.



Contents











Process







FORMOSA. was established in 1996. It has set up sales offices in China and Asia. The company takes "new speed, diligence, profit creation, enthusiasm, integrity, and future-looking" as its business philosophy, and "quality first" in terms of service., service priority, customer satisfaction, continuous improvement" is the direction of sustainable management.

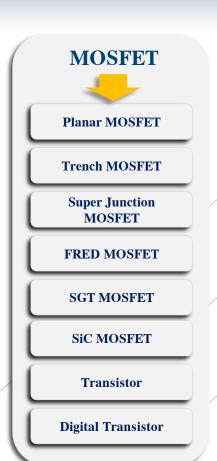
FORMOSA is committed to the professional production of semiconductors. The products include diodes, TVS and ESD, Bridge, MOSFET, Transistor, Thyristor, etc. The professional certificates that have been obtained so far include ISO9001, ISO14001, IATF16949, and AEC-Q101 on automotive components. The verification process, and has obtained patents in the United States, China, Japan, Taiwan and other countries in the research and development results. The application products also include aerospace, automotive, 5G, 3C, AI, IOT, PC, power supply and other products.

In addition to upholding professional technical support, the FORMOSA professional team also has a professional global supply chain team as the backing, providing customers with high-quality services such as "professional, high-quality, fast, and reasonable" at any time. And establish a trustworthy and long-term cooperative relationship with customers!





Products















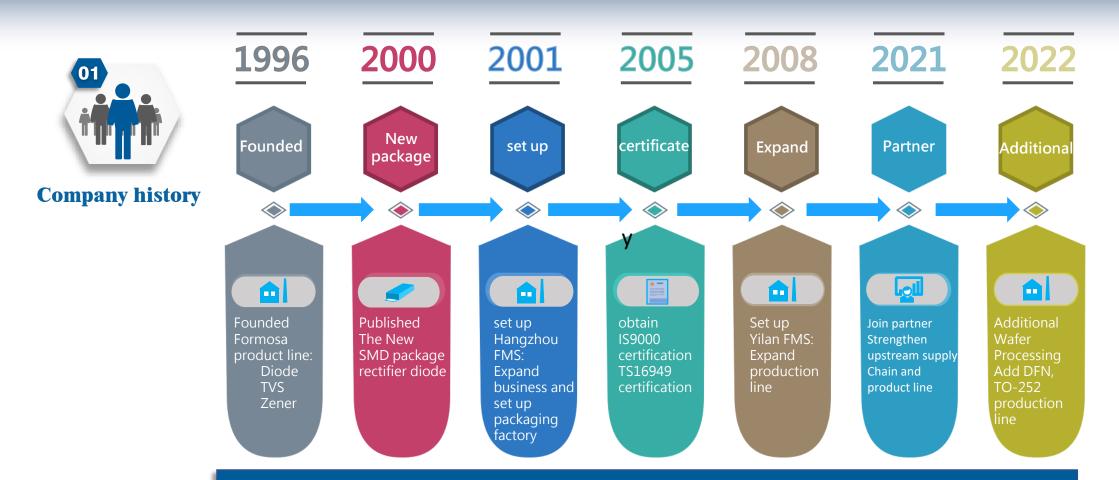
Package type

General Diode	FAST Diode	ULTRA FAST Diode	SUPER FAST Diode	EFFICIENT Diode	SCHOTTKY Diode	ZENER Diode	TVS	ESD	TSS	GDT	MOSFET Thyristor
SOD-323 SOD-123 SOD-123H SOD-123S SMA SMA-S SMB-S SMC R-1 DO-41 DO-15 DO-201AD P600	SOD-123 SOD-123H SOD-123S SMA SMA-S SMB-S SMC DO-41 DO-15 DO-201AD P600 TO-220AC TO-220AB ITO-220AC ITO-220AB	SOD-123 SOD-123H SOD-123S SMA SMA-S SMB-S SMC DO-41 DO-15 DO-201AD P600 TO-220AC TO-220AB ITO-220AC ITO-220AB	SOD-123 SOD-123H SOD-123S SMA SMA-S SMB-S SMC DO-41 DO-15 DO-201AD DPAK(TO-252) D2PAK (TO-263) TO-220AC TO-220AB ITO-220AC ITO-220AB	SOD-123 SOD-123H SOD-123S SMA SMA-S SMB-S SMC TO-220AC TO-220AB ITO-220AC ITO-220AB	0603,0402(T1006P2) SOD-323,SOD-323F SOD-323FL,SOD-323S SOD-523FL,SOD-723FL SOD-923FL,SOD-123 SOD-123F,SOD-123HT SOD-123H,SOD-123HT SOD-123S,SOD-123ST SOT-23,SOT-323 SOT-363,SOT-523 SMA,SMA-HS,SMA-HST SMA-L,SMA-S,SMB-S SMC,SMC-T3 DPAK(TO-252) D2PAK(TO-263) ITO-220AB,TO-220AB TO-220AC,TO-277B DO-15,DO-201AD, DO-41 P600,R-1	SOD-523FL SOD-323FL SOD-323F SOT-323 SOT-23 SOD-123 SMA SMC DO-35G DO-41G DO-41	SOD-123S SOD-123NT SMA-S SMB-S SMC-F SMA-NT ASM-10A DO-218 DO-41 DO-15 DO-201AE P600	0201(T0603) 0402(T1006P2) 0603 SOD-923FL SOD-723FL SOD-523FL SOT-523 SOT-23 SOT-23-6 (SOT-26) SOT-363 TSOP-6 T2510P10	SOD-123FL SMA SMB SMBF SMC DO-15 DO-27 TO-92-2L SOP-8 SOT23-5 SOT23-6	3216 4532 4242 5042 7650 1276 7650 5560 8060 8383 13410	T5060P8 T3333P8 TO-251S T2020P6 T3030P8 ITO-220AB T0-220AB T1006P3 TO-247 TO-220AS TO-251 TO-252(DPAK) TO-252(DPAK) TO-263(D2PAK) TSOP-8 SC-59 SOP8 (SOP-08) SOT-723 SOT-523 SOT-523 SOT-563 SOT-23-3L SOT-23-3L SOT-23-3L SOT-23-3L SOT-23-3SOT-363 SOT-223 SOT-323 SOT-363 SOT-223 SOT-89 SOP8(SOP-08)

BRIDGE

MDS, MBLS, DFS, DBS, DFS, MDB, DF, DB, RB-15, KBP, WOB, GBP, GBL, KBPC-3, GBU, GBL, 4GBJ, KBU, GBJ, KBPC-6, KBPC-8, MP-8, KBPC-MT, KBPC-MW, KBPC-PT, KBPC-PW, KBPC-PS, GBPC-T, GBPC-W











Production

Professional manufacturing and design with mass production capacity

Equipment

Equipped with AEC Q101 and IATF 16949 equipment to meet various safety tests

Support

Support customers' various applications and special designs

Quality

ISO 9001, IATF 16949, ISO 4001, AEC Q101 certified

Products

Satisfy all thin, light, short and high-power packages, and prepare wafer processing plants





ISO9001 ISO14001 IATF16949







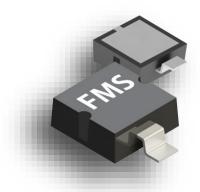




















Formosa Microsemi (Yilan Taiwan)

No. 38, Meizhou 2nd Road, Yilan City, Yilan County, Taiwan Salse/Fabrication

Business items: Diodes, TVS, MOSFET, Transistor, ESD, TSS, GDT, wafer, SCR, TRIAC

Formosa Microsemi (Taipei Taiwan)

10th Floor, No. 5, Lane 165, Ligong Street, Beitou District, Taipei City, Taiwan

Salse

Business items: Diodes, TVS, MOSFET, Transistor, ESD, TSS.GDT, wafer, SCR, TRIAC

Formosa Microsemi (Hangzhou China)

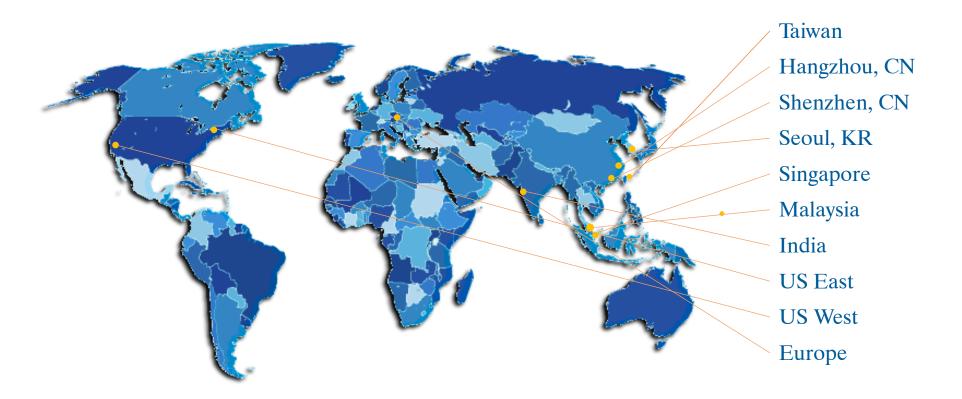
3rd Floor, Building 1, No. 6 Mingde Road, Binjiang District, Hangzhou, China Sales/Fabrication

Business items: Diodes, TVS, MOSFET, Transistor, ESD, TSS, GDT, wafer, SCR, TRIAC





Sales base







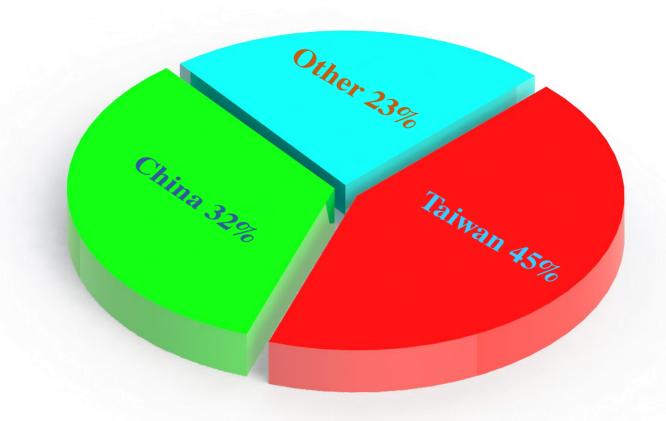


Unit: 100 million yuan (TWD)



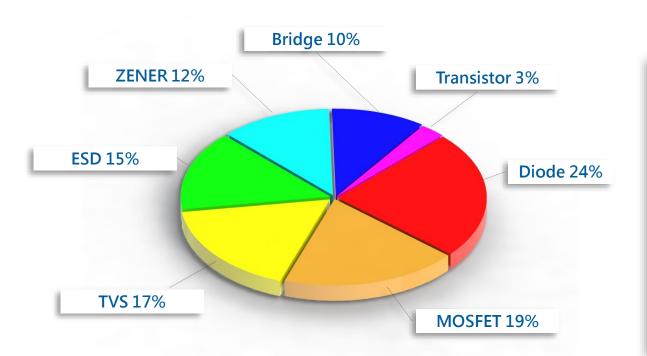








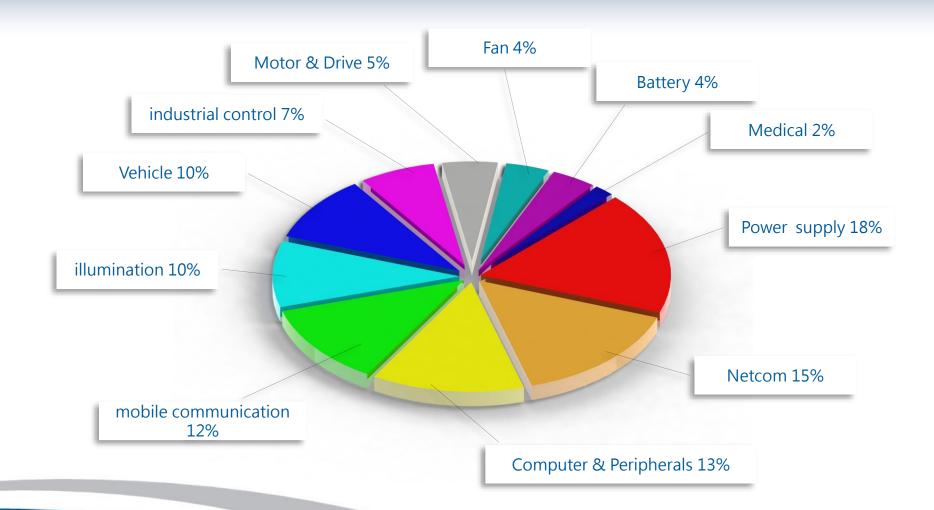




Product Category	Sales ratio (amount) (%)	Monthly (kk)	
DIODE	24	100	
MOSFET	19	344	
TVS	17	241	
ESD	15	100	
ZENER	12	30	
Bridge	10	5	
Transistor	3	20	



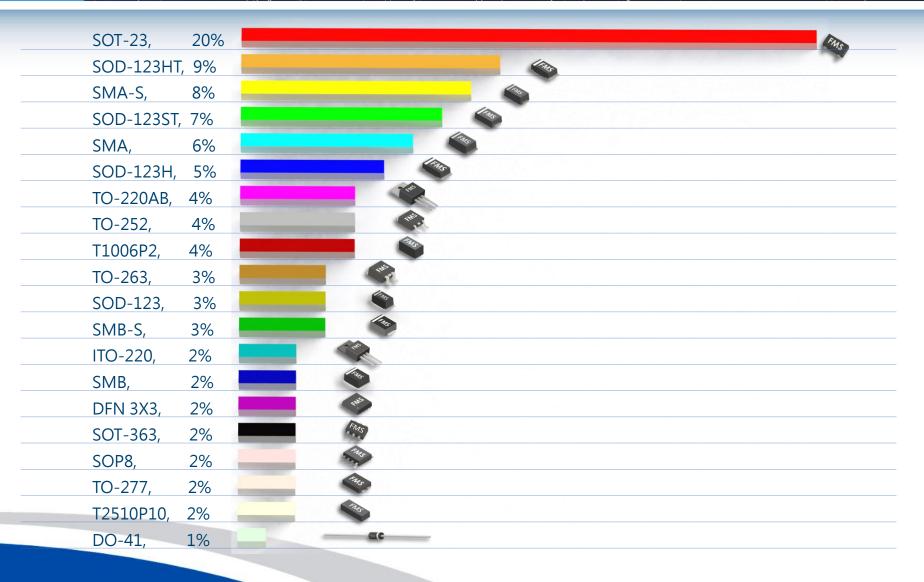








Package ratio







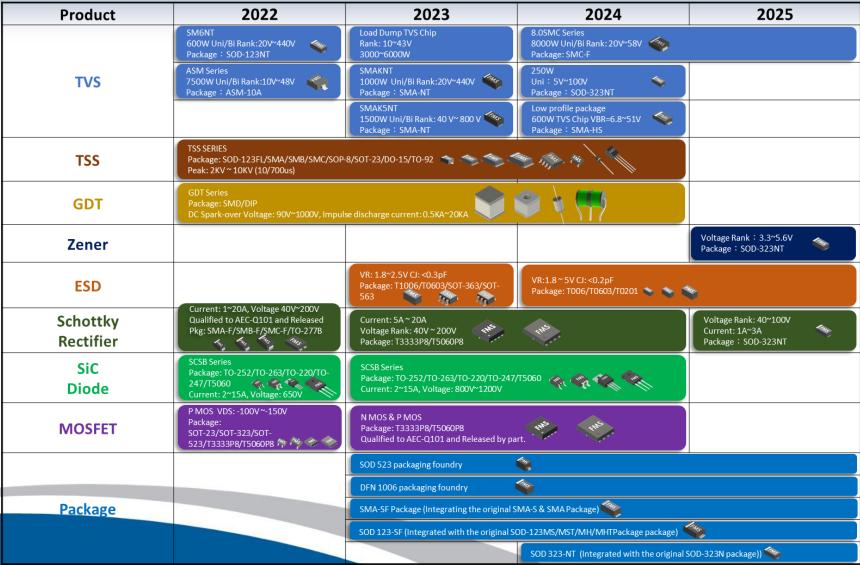
Packaging capacity

Maximum production	capacity (month)
Package	Quantity (KK)
T5060P8	2
T3333P8	2
TO-251S	3
T2020P6	2
T3030P8	2
ITO-220AB	5
TO-220AB	5
T1006P3	10
TO-247	5
TO-220AS	5
TO-251	5
TO-252(DPAK)	5
TO-263(D2PAK)	5
TSSOP-8	5
SC-59	5
SOP8 (SOP-08)	3
SOT-723	30
SOT-523	30
SOT-563	30

Maximum production capacity (month)							
Package	Quantity (KK)						
SOT-23	50						
SOT-23-3L	30						
SOT-23-6	20						
SOT-323	20						
SOT-363	20						
SOT-223	20						
SOT-89	20						
SOP8(SOP-08)	5						
SOD-123S	30						
SMA-S	30						
SMB-S	20						
SMC-F	10						
ASM-10A	1						
DO-218	30						
DO-41	30						
DO-15	30						
DO-201AE	30						
P600	30						











		2022		2023		2024	2025
		IT Uni/Bi Rank:20V~440V ge∶SOD-123NT	Load Dump TVS Chip Rank: 10~43V 3000~6000W		8.0SMC 8000W Package	Uni/Bi Rank: 20V~58V	
	2022/Q4 start s P/N: SM6NT Se	supply eries	2023/Q2 start supply 2 P/N: TVS Chip Series P		2024/Q3 start P/N: 8.0SMC	t supply Series	
	SPEC	600W VC:20V~440V	SPEC	3000~6000W VC:10~43V	SPEC	8000W VC:20~58V	
	Feature	Pins are not exposed,like DFN Pkg	Feature	Vehicle ISO 17752-2	Feature	Industry package SMC max	ximum power
	Арр	Power · Netcom · I/O	Арр	Vehicle · Electronic car	Арр	Vehicle、Electronic car、P	ower · Netcom
		eries / Uni/Bi Rank:10V~48V e:ASM-10A	SMAKNT 1000W Uni/Bi Rank:20V~440V Package: SMA-NT			sV~100V e: SOD-323NT	
	2022/Q4 start supply P/N: SM6NT Series		2023/Q3 start supply P/N: SMAKNT Series		2024/Q2 start supply P/N: SM2.5F Series		
TVS	SPEC	7500W VC:10~48V	SPEC	1000W VC: 20~440V	SPEC	250W VC: 5~100V	
	Feature	7500W smallest package	Feature	Pins are not exposed, like DFN Pkg	Feature	Pins are not exposed,like DFN Pkg	
	Арр	Vehicle · Power · Netcom	Арр	Vehicle · Power · Netcom	Арр	Vehicle · Power · Netcom	
				VT Uni/Bi Rank: 40 V~ 800 V ∵ SMA-NT	600W T	ofile package VS Chip VBR=6.8~51V S: SMA-HS	
			2023/Q3 start s P/N: SMAK5NT		2024/Q1 start P/N: SMA6HS	t supply Series	
			SPEC	1500W VC: 40~800V	SPEC	600W VC: 6.8~51V	
			Feature	Pins are not exposed,like DFN Pkg	Feature	Slim design	
			Арр	Vehicle · Power · Netcom	Арр	Vehicle · Power · Netcom	

- 1. 2022 Develop leadless SOD-123NT products, develop the highest power SMD 7500W products
- 2. 2023 Develop Loe Dump TVS automotive products, develop SMA leadless TVS products
- 3. 2024 Develop the industry's highest power SMC products, develop the industry's thinnest SMA TVS products





Roadmap

Product		2022	2023	2024	2025
		TSS SERIES Package: SOD-123FL/SMA/SMB/SMC/SC Peak: 2KV ~ 10KV (10/700us)	P-8/SOT-23/DO-15/TO-92 🥎 🦠 🌑	The said of the sa	
TSS	2022/Q4 Start supply P/N: TSS Series				
100	SPEC	VC: 2000~10000V	SPEC: IEC 61000-4-5		
	Feature	Suppression of ultr	a-high surge voltage		
	Арр	Vehicle · Power · N	Netcom		

- 1. 2022 Develop 2~10KV products of SOD-123FL/SMA/SMB/SMC/SOP-8/SOT-23/DO-15/TO-92
- 2. 2023 Develop 20KV products of SMC/SOP-8
- 3. 2024 Develop 30KV products of SMC/SOP-8

Product	2	022	2023	2024	2025
		GDT Series Package: SMD/DII DC Spark-over Vo	o tage: 90V~1000V, Impulse discharge current: 0.5KA~.	ZOKA OF THE STATE	
GDT	2022/Q4 Start s P/N: GDT Series				
	SPEC	VC: 90~1000\	/ IIM:500A~20000A SPEC: IEC 610	000-4-5	
	Feature	Suppression o	f ultra-high surge power		
	Арр	Power · Net	com · NB · PC · Server		

- 1. 2022 Develop T1276, T1310, T3216, T4242, T5560, T7650, T8060, T8383 90~1000V products
- 2. 2023 Develop T7650, T8060, T8383 2000V products
- 3. 2024 Develop T7650, T8060, T8383 3000V products





Product	2022	2023	2024		2025
				2025/Q3 S	sage Rank: 3.3~5.6V kage: SOD-323NT Start supply M-NT Series
Zener				SPEC	3.3~5.6V
				Feature	Pins are not exposed,like DFN Pkg
				Арр	All electronics

Product	2022		2023		2024	2025
			VR: 1.8~2.5V CJ: <0.3pF Package: T1006/T0603/SOT-363/SOT- 563		::1.8~5V CI: <0.2pF ckage: T006/T0603/T0201	*
ESD			Start supply M-NT Series	2025/Q15 P/N: ULxx	Start supply Series	
		SPEC	VC: 1.8~2.5V	SPEC	VC: 1.8~5V	
	Fea	Feature Ultra-small junction capacitance, ultra-high frequency applications		Feature	Ultra-small junction cap applications	pacitance, ultra-high frequency
	A		App Power · Netcom · NB · PC · Server		Power · Netcom · N	NB · PC · Server

- 1. 2023 Develop T1006/T0603/SOT-363/SOT-563 products with low capacitance < 0.3pF
- 2. 2024~2025 Develop T006/T0603/T0201 products with low capacitance < 0.2pF





Product		2022		2023	2024		2025	
Schottky	Qualifie Pkg: SM 2022/Q4 P/N: FMX					Voltage Rank: 40~100V Current: 1A~3A Package: SOD-323NT 2025/Q2 Start supply P/N: FMXX-NT Series		
Rectifier	-Cr-	·Q1/-17B-Q1 Selles	P/IN. FIVIA	X-AB Series/ FMXX	-AC Series	P/IN. FIVIA	A-INT Selles	
	SPEC	VR: 40~200V IF:1~20A	SPEC	SPEC VR: 40~200V IF:5~20A			VR: 40~100V IF:1~3A	
	Feature	For Vehicle	e Feature For Vehicle			Feature	For Vehicle, Industry SOD-323 maximum operating current	
	Арр	DC/DC,Power Supply	Арр	DC/DC,Power Sup	ply	Арр	DC/DC,Power Supply	

Product	2022			2023	2024	2025
SiC Diode	Pa 24 Cu	SB Series ckage: T0-252/T0-263/T0-220/T0- 17/T5060 prent: 2~15A, Voltage: 650V Start supply B Series	SCSB Se Package Current 2024/Q2 Sta	:: TO-252/TO-263/TO-220/TO-24 : 2~15A, Voltage: 800V~1200V art supply	7/T5060 (F) (F) (F)	
	SPEC	VR: 650V IF:2~15A	SPEC	VR: 1200V IF:2~15A		
	Feature High operating frequency, low switching loss		Feature	High operating frequ	uency, low switching loss	
	Арр	DC/DC,Power Supply	Арр	DC/DC, Power Supp	ly	





Product		2022		2023	2024	2025
	P MOS VDS: -100V~-150V Package: SOT-23/SOT-323/SOT- 523/T3333P8/T5060P8 / 2022/Q4 Start supply P/N: FMOSXXPXX Series		N MOS & P MOS Package: T3333P8/T5060P8 Qualified to AEC-Q101 and Released by part. 2024/Q3 Start supply P/N: FMOSABXX-Q1 Series/FMOSACXX-Q1 Series			
WOSTET	SPEC	VDS:100~150V	SPEC	VDS:100~150VID	D: 5A~30A	
	Feature	Compatible with All applications in the market	Feature	Meet ultra-fast applic synchronous rectifica specifications	ations, meet the needs of tion, complete vehicle	
	Арр	For All Electronics	Арр	DC/DC, Power Supp	ly, LED Driver	

Product	2022	20	23	2024	2025
New Package		DFN 1006 Small signal packaging foundry			
		SOD 523 Small signal packaging foundry			
		SOD 123-SF (Integrated with the original SOD-123MS/MST/MH/MHTPackage package)			
		SMA-SF (Integrated with the original SMA-S & SMA Package package)			
				SOD 323-NT (Integrated with the original SOD-3.	23N package)
		SPEC	Diode,TVS,ESE	,Zener	
		Feature	Focus on OEM products, comprehensive vehicle application		
		Арр	For All Electronics		



2022 Parts development and application

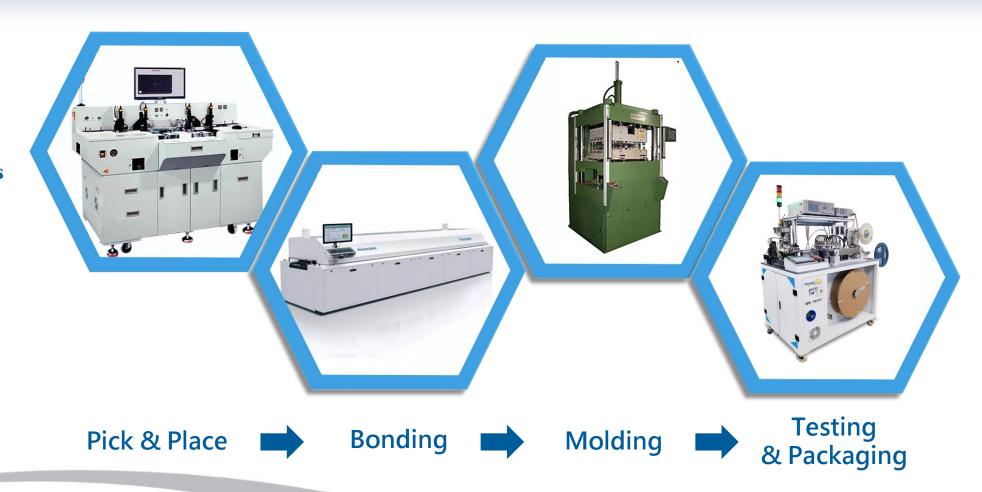


Topic Discussion : 2022Parts development and application	illustrate		
Electronic components used in ESG consumer electronics	 Research on lead-free process: search, confirm and evaluate related raw materials and process information Waste reduction in the manufacturing process: research on prolonging the service life of chemical potions in the manufacturing process without affecting product quality standards 		
Electronic components used in consumer electronics	 Research and development of small size and high power products: SOD 123 600WTVS / SMA 1500WTVS and other products in sample delivery Research the full automation of the production line: evaluate the introduction of assembly process automation equipment/plastic sealing molding automation equipment Process integration: The cutting process is fully converted into a single mold process, and the package is adjusted to meet market demand 		
Electronic components are used in military regulations, vehicle regulations, commercial regulations	 Reliability specification Vehicle specification: Our company complies with AEC Q101 specification Commercial regulation: Our company complies with MIL STD 750E specification 2. MTTF difference Vehicle specification: Sample size 77PCS. test period 1000H Commercial specification: Sample size 22PCS. test period 168H 		

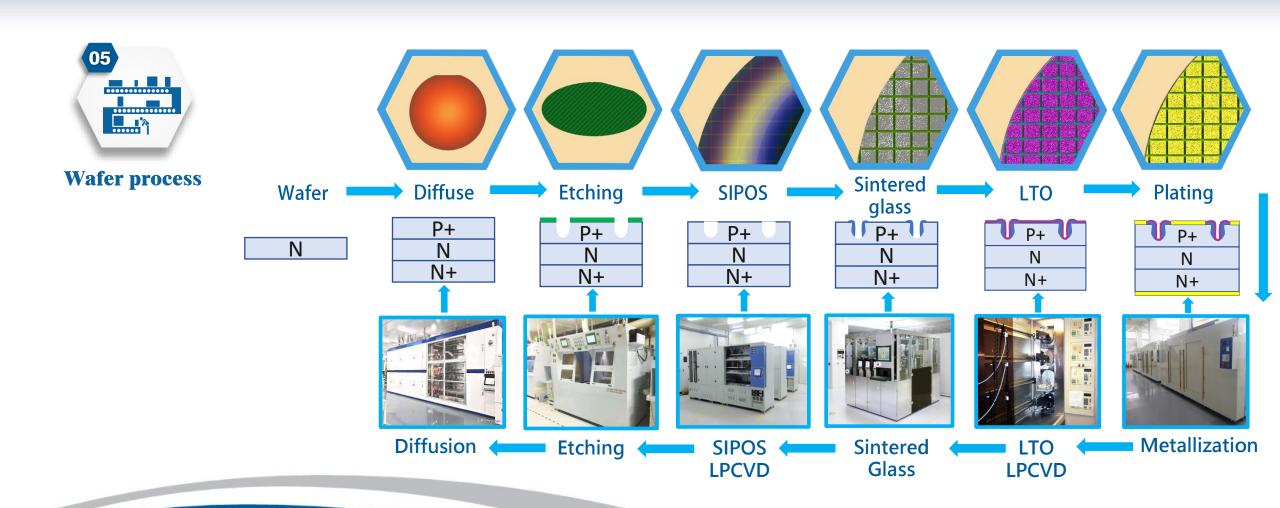




Encapsulation process

























6S Optics

Optics tester

TMTT

Electrical tester

Thermal shock tester

Temperature cycle tester

HTRB

OTHERS

Lifetime tester Electrical surge tester **ESD** tester

Boiler Hi-temp, Hi-moisture tester **Pull tester**













MOLICEL®

FOXCONN®

ASKEY

CVTE

L5 Automotive



Formosa Microsemi CO., LTD

Company Profile

Thank You