





























## Packages

Package cross reference 100

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### Package cross reference

Pins / leads	NXP	Industry standard names	Size (l x w x h) (mm)	P <sub>tot</sub> (mW)	Package	Competitor synonyms								
						Rohm	Toshiba	ON Semi	Renesas	Infineon	Diodes Inc	KEC	Vishay	Semtech
2	SOD27	DO-35	4.25 x 1.85 x 0.56	500		GSD			DO-35		DO-35		DO-204AH	
	SOD66	DO-41	4.8 x 2.6 x 0.81	1300		GSR	DO-41				DO-41		DO-204AL	
	SOD68	DO-34	3.04 x 1.6 x 0.55	500		MSD								
	SOD80C	MiniMelf	3.5 x 1.5 x 1.5	300		LLDS			LLD		MiniMELF		MiniMELF	
	SOD123F	-	2.6 x 1.6 x 1.1	830		PMDU	S-Flat	SOD-123-FL			PowerDI123	SMF		
	SOD123W	-	2.6 x 1.7 x 1.0	900			S-Flat	SOD-123-FL			PowerDI123			
	SOD128	-	3.8 x 2.5 x 1.0	1000		PMDT	M-Flat							
	SOD323	SC-76	1.7 x 1.25 x 0.95	400			USC	SOD-323	URP	SOD323	SOD-323	USC	SOD323	
	SOD323F	SC-90	1.7 x 1.25 x 0.7	830		UMD2	US-Flat				PowerDI323			
	SOD523	SC-79	1.2 x 0.8 x 0.6	500		EMD2	ESC/TESC	SOD-523	UFP	SC79		ESC	SOD523	
	SOD882	-	1.0 x 0.6 x 0.5	250			CTS2			TSLP-2	DFN1006-2			
	SOD882D	-	1.0 x 0.6 x 0.37	250						TSLP-2-7	DFN1006H4-2			
3	SOT1061	HUSON3	2.0 x 2.0 x 0.65	1300				WDFN3			DFN2020-3		PowerPAK SC706L	
	SOT23	-	2.9 x 1.3 x 1.0	250		SSD3/SST3		SOT-23		SOT23	SOT-23	SOT-23	SOT23	
	SOT323	SC-70	2.0 x 1.25 x 0.95	200		UMD3/UMT3	USM	SC-70	CMAK/CM-PAK	SOT323	SOT-323	USM	SC-70 3 leads	
	SOT416	SC-75	1.6 x 0.8 x 0.77	150		EMD3/EMT3	SSM	SC-75	SMPAK	SC75			SC-75A	
	SOT883	SC-101	1.0 x 0.6 x 0.5	250			SS CSP2			TSLP-3-1	DFN1006-3			
4	SOT89	SC-62	4.5 x 2.5 x 1.5	1300		MPT3	PW-Mini	SOT-89	UPAK (SOT89)	SOT89		SOT-89		
	SOT143B	-	2.9 x 1.3 x 1.0	250			CP4		MPAK-4R	SOT143	SOT-143			
5	SOT223	SC-73	6.5 x 3.5 x 1.65	1700				SOT-223		SOT223	SOT-223	SOT-223	SOT223	
	SOT353	SC-88A	2.0 x 1.25 x 0.95	300		UMD5/UMT5	USV	SC-88A	CMPAK-5(T)			USV	SOT353	
	SOT665	-	1.6 x 1.2 x 0.55	300		EMD5/EMT5	ESV	SOT-553	VSON-5			TESV		
6	SOT363	SC-88	2.0 x 1.25 x 0.95	300		UMD6/UMT6	US6	SC-88	CMPAK-6	SOT363	SOT-363	US6	SOT363	
	SOT457	SC-74	2.9 x 1.5 x 1.0	750		SMD6/SMT6	SM6	SC-74	TSOP-6	SC74		TSOP6	TSOP-6	
	SOT666	-	1.6 x 1.2 x 0.55	300		EMD6/EMT6	ES6	SOT-563	SMFPAK-6	SOT666	SOT563	TES6	SC89-6lead	
	SOT1118	-	2.0 x 2.0 x 0.65	1300				6 Lead DFN			DFN2020B-6			
	SOT886	XSON6	1.45 x 1.0 x 0.5	250										SLP1510N6
SOT891	XSON6	1.0 x 1.0 x 0.5	-											

Pins / leads	NXP	Industry standard names	Size (l x w x h) (mm)	P <sub>tot</sub> (mW)	Package	Competitor synonyms									
						Rohm	Toshiba	ON Semi	Renesas	Infineon	KEC	Vishay	Semtech		
8	SOT505	TSSOP8	3.0 x 3.0 x 1.1	-								TSSOP-8		TSSOP8	
	SOT96	SO8	4.9 x 3.9 x 1.75	1500		SOP8	FM8	SOIC-8 NB	SOP-8			FLP-8	SO8		
8 + 1	SOT983	HXSON8	1.7 x 1.35 x 0.5	-								UDFN 1.7 x 1.35, 0.4P		SLP1713P8	
	SOT1157	HXSON8	1.2 x 1.7 x 0.5	-								UDFN8, 1.8 x 1.2, 0.4P			
	SOT1166	HUSON8	1.35 x 1.7 x 0.55	-										SLP1713P8	
9	SOT1178	XSON9	1.0 x 2.1 x 0.5	-										SLP2010P8T	
10	SOT1165	XSON10	1.0 x 2.5 x 0.5	-								UDFN10 2.5 x 1, 0.5P	TSLP-9-1	SLP1610P4	
	SOT1176	XSON10	1.0 x 2.5 x 0.5	-								UDFN10 2.5 x 1, 0.5P	TSLP-9-1	SLP1610P4	
	SOT552	TSSOP10	3.0 x 3.0 x 1.1	-								Micro10	TSSOP10	MSOP-10L	
12+1	SOT984	HXSON12	2.5 x 1.35 x 0.5	-										SLP2513P12	
	SOT1158	HXSON12	1.2 x 2.5 x 0.5	-								UDFN12, 2.5 x 1.2, 0.4P			
14	SOT1167	HUSON12	1.35 x 2.5 x 0.55	-								UDFN12, 2.5 x 1.35, 0.4P		SLP2513P12	
	SOT108	SO14	8.65 x 3.9 x 1.75	-		SOP14							DSO14		
16 + 1	SOT985	HXSON16	3.3 x 1.35 x 0.5	-								UDFN16, 3.3 x 1.35, 0.4P		SLP3313P16	
	SOT1159	HXSON16	1.2 x 3.3 x 0.5	-								UDFN16, 3.5 x 1.2, 0.4P			
	SOT1168	HUSON16	1.35 x 3.3 x 0.55	-										SLP3313P16	
20	SOT360	TSSOP20	6.5 x 4.4 x 1.1	-								TSSOP20	TSSOP20		
38	SOT510	TSSOP38	9.7 x 4.4 x 1.1	-									TSSOP38		

### Packing methods SMD

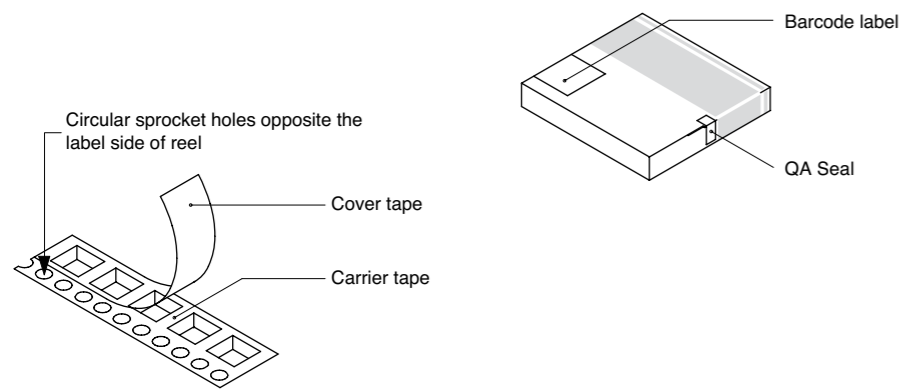
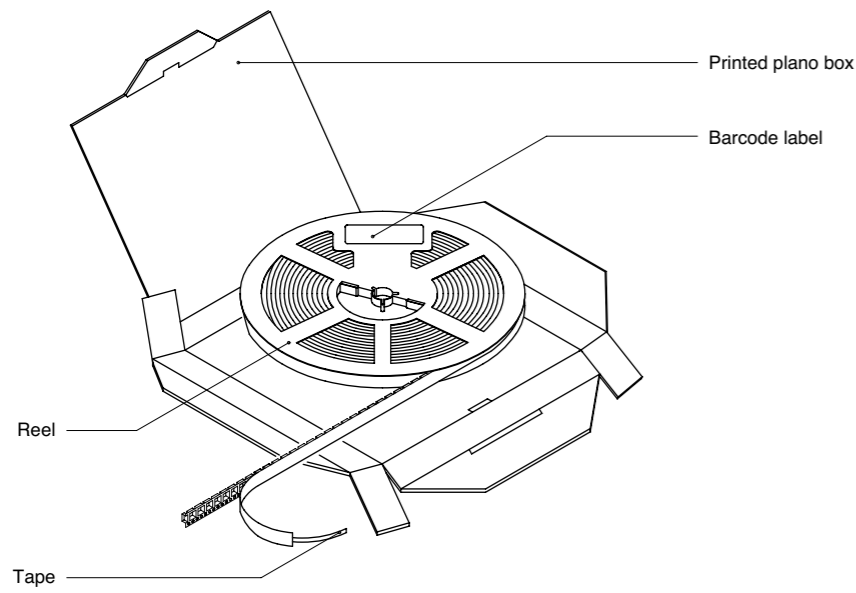
Pins / leads	Package	Packing method and tape dimension	Reel dimension (d x w) (mm)	Taping	Package	Packing quantity and ordering code (12 NC ending)							
						800	1000	2500	3000	4000	8000	9000	10000
2	SOD80C	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-115	-	-	-	-	-
		4 mm pitch, 8 mm tape and reel	330 x 8	-		-	-	-	-	-	-	-	-135
	SOD123F	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-
	SOD123W	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-
	SOD128	4 mm pitch, 12 mm tape and reel	180 x 12	-		-	-	-	-115	-	-	-	-
	SOD323	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-
		4 mm pitch, 8 mm tape and reel	286 x 8	-		-	-	-	-	-	-	-	-135
	SOD323F	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-
	SOD523	2 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-	-315	-	-
		4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-
		4 mm pitch, 8 mm tape and reel	286 x 8	-		-	-	-	-	-	-	-	-135
	SOD882	2 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-	-	-	-315
	SOD882D	2 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-	-	-	-315
	SOD962	2 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-	-	-	-315
3	SOT23	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-215	-	-	-	-
		4 mm pitch, 8 mm tape and reel	286 x 8	-		-	-	-	-	-	-	-	-235
	SOT89	8 mm pitch, 12 mm tape and reel	180 x 12	T1		-	-115	-	-	-	-	-	-
		8 mm pitch, 12 mm tape and reel	330 x 12	T1		-	-	-	-	-135	-	-	-
		8 mm pitch, 12 mm tape and reel	180 x 12	T3		-	-146	-	-	-	-	-	-
		8 mm pitch, 12 mm tape and reel	180 x 12	T4		-	-147	-	-	-	-	-	-
	SOT323	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-
		4 mm pitch, 8 mm tape and reel	286 x 8	-		-	-	-	-	-	-	-	-135
	SOT404	16 mm pitch, 24 mm tape and reel	330 x 24	-		-118	-	-	-	-	-	-	-
	SOT416	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-
		4 mm pitch, 8 mm tape and reel	286 x 8	-		-	-	-	-	-	-	-	-135
	SOT428	8 mm pitch, 16 mm tape and reel	330 x 16	-		-	-	-118	-	-	-	-	-
	SOT663	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-115	-	-	-
	SOT883	2 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-	-	-	-315
SOT1061	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-	
4	SOT143B	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-215	-	-	-	-
		4 mm pitch, 8 mm tape and reel	286 x 8	-		-	-	-	-	-	-	-	-235
	SOT223	8 mm pitch, 12 mm tape and reel	180 x 12	-		-	-115	-	-	-	-	-	-
		8 mm pitch, 12 mm tape and reel	330 x 12	-		-	-	-	-	-135	-	-	-

Pins / leads	Package	Packing method and tape dimension	Reel dimension (d x w) (mm)	Taping	Package	Packing quantity and ordering code (12 NC ending)								
						1000	1400	2500	3000	4000	5000	8000	10000	
5	SOT353	4 mm pitch, 8 mm tape and reel	180 x 8	T1		-	-	-	-115	-	-	-	-	
		4 mm pitch, 8 mm tape and reel	286 x 8	T1		-	-	-	-	-	-	-	-135	
		4 mm pitch, 8 mm tape and reel	180 x 8	T2		-	-	-	-125	-	-	-	-	
		4 mm pitch, 8 mm tape and reel	286 x 8	T2		-	-	-	-	-	-	-	-165	
	SOT665	2 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-	-	-	-315	
		4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-115	-	-	-	
6	SOT363	4 mm pitch, 8 mm tape and reel	180 x 8	T1		-	-	-	-115	-	-	-	-	
		4 mm pitch, 8 mm tape and reel	286 x 8	T1		-	-	-	-	-	-	-	-135	
		4 mm pitch, 8 mm tape and reel	180 x 8	T2		-	-	-	-125	-	-	-	-	
		4 mm pitch, 8 mm tape and reel	286 x 8	T2		-	-	-	-	-	-	-	-165	
	SOT457	4 mm pitch, 8 mm tape and reel	180 x 8	T1		-	-	-	-115	-	-	-	-	
		4 mm pitch, 8 mm tape and reel	286 x 8	T1		-	-	-	-	-	-	-	-135	
		4 mm pitch, 8 mm tape and reel	180 x 8	T2		-	-	-	-125	-	-	-	-	
		4 mm pitch, 8 mm tape and reel	286 x 8	T2		-	-	-	-	-	-	-	-165	
	SOT666	2 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-	-	-	-315	
		4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-	-115	-	-	-	
		SOT1118	4 mm pitch, 8 mm tape and reel	180 x 8	-		-	-	-	-115	-	-	-	-
			4 mm pitch, 8 mm tape and reel	180 x 8	T1		-	-	-	-	-	-115	-	-
SOT886	4 mm pitch, 8 mm tape and reel	180 x 8	T4		-	-	-	-	-	-132	-	-		
	4 mm pitch, 8 mm tape and reel	180 x 8	T4		-	-	-	-	-	-132	-	-		
8	SOT505	8 mm pitch, 12 mm tape and reel	330 x 12	-		-	-	-118	-	-	-	-	-	
		8 mm pitch, 12 mm tape and reel	180 x 12	-		-	-118	-	-	-	-	-	-	
	SOT96	8 mm pitch, 12 mm tape and reel	180 x 12	-		-115	-	-	-	-	-	-	-	
		8 mm pitch, 12 mm tape and reel	330 x 12	-		-	-	-118	-	-	-	-	-	

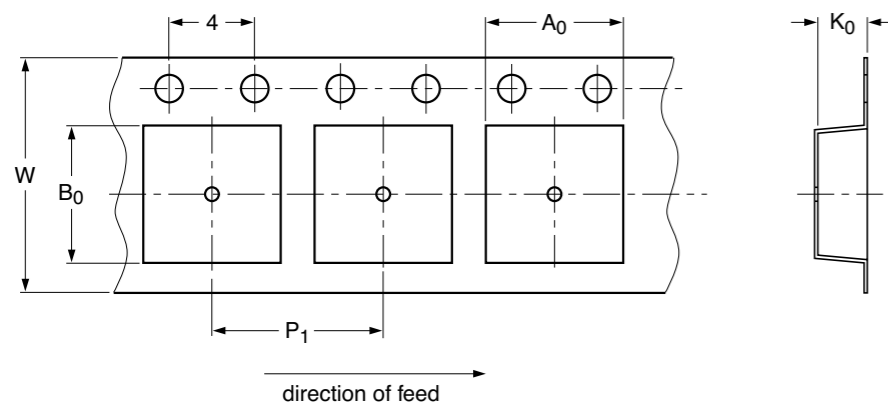
### Packing methods glass diodes and through hole packages

Pins / leads	Package	Packing method and tape/reel/tube dimensions	Package	Ordering code (12 NC ending)	Packing quantity	
2	SOD27	26 mm tape ammo pack, axial		-143	5000 pcs	
		52 mm tape ammo pack, axial		-133	10000 pcs	
		52 mm reel pack, axial		-113	10000 pcs	
	SOD59	Rail packing, 50 pcs/tube, tube length = 520 mm			-127	20 tubes x 50 pcs
		SOD66	52 mm tape ammo pack, axial		-133	10000 pcs
			52 mm reel pack, axial		-113	10000 pcs
3	SOD68	26 mm tape ammo pack, axial		-143	5000 pcs	
		52 mm reel pack, axial		-113	10000 pcs	
	SOD113	52 mm tape ammo pack, axial			-133	10000 pcs
		Rail packing, 50 pcs/tube, tube length = 520 mm			-127	20 tubes x 50 pcs
3	SOT54	Bulk pack, 1000 pcs/carrier		-112	5 carriers x 1000 pcs	
		55 mm reel packing, 2000 pcs/reel, reel dimensions = 380 x 55 mm		-116	5 reels x 2000 pcs	
		Ammo packing, 18 mm tape, 2000 pcs/carrier, reel dimensions = 350 x 55 mm		-126	5 carriers x 2000 pcs	
		Bulk pack, 1000 pcs/carrier		-412	5 carriers x 1000 pcs	
	SOT78	Rail packing, 50 pcs/tube, tube length = 520 mm			-127	20 tubes x 50 pcs
	SOT78D	Rail packing, 50 pcs/tube, tube length = 520 mm			-127	20 tubes x 50 pcs
	SOT82	Rail packing, 50 pcs/tube, tube length = 390 mm			-127	20 tubes x 50 pcs
	SOT186A	Rail packing, 50 pcs/tube, tube length = 520 mm			-127	20 tubes x 50 pcs
	SOT226	Rail packing, 50 pcs/tube, tube length = 520 mm			-127	20 tubes x 50 pcs
	SOT533	Rail packing			-127	75 tubes x 50 pcs

### Tape and reel pack for SMD packages



### Carrier tape - tape and reel

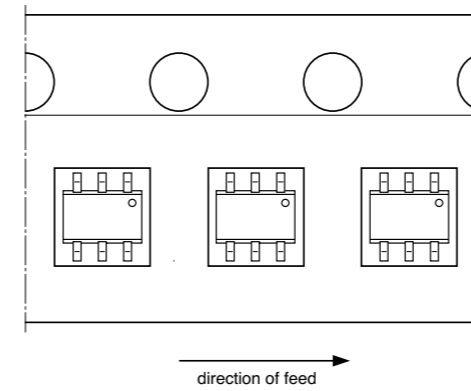


P1 = pitch (see table packing methods)  
W = tape width (see table packing methods)

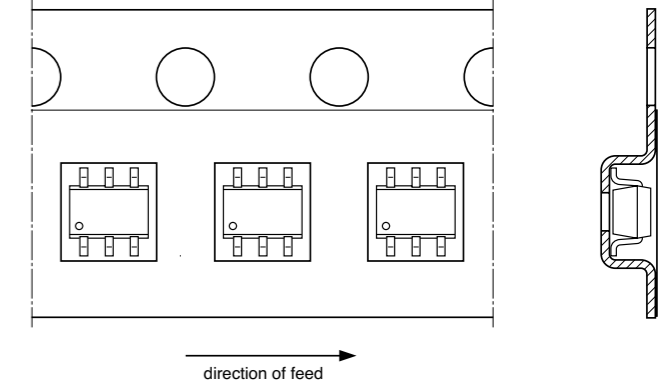
Compartment width ( $A_0$ ), length ( $B_0$ ) and depth ( $K_0$ ) depending on package

### Product orientation (tape and reel pack) T1-T4

#### T1 taping

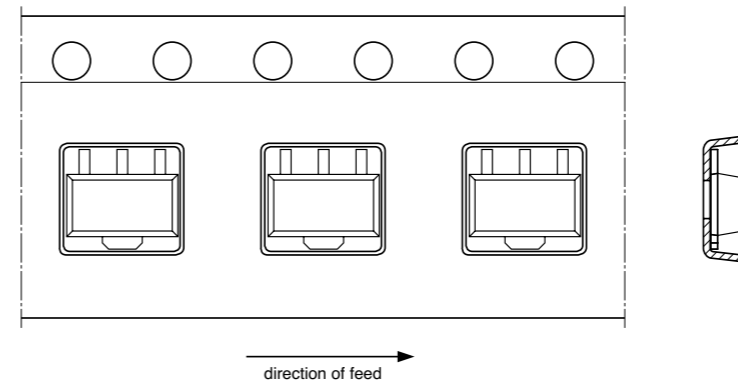


#### T2 taping

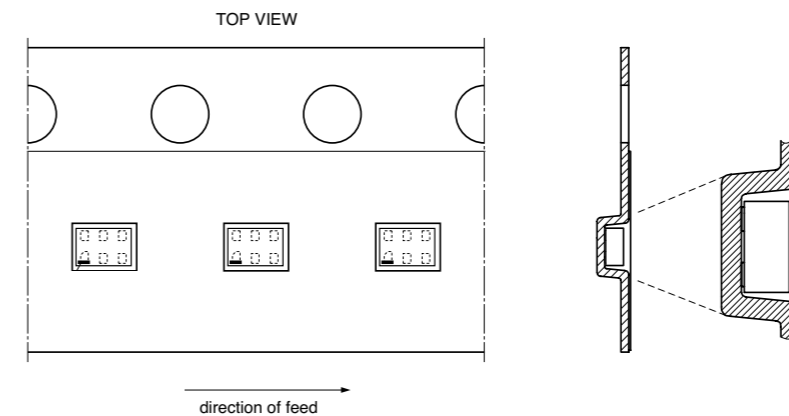


#### T3 taping

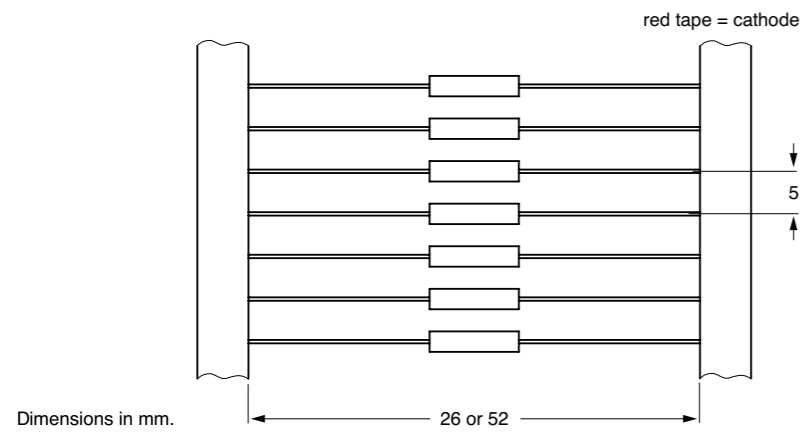
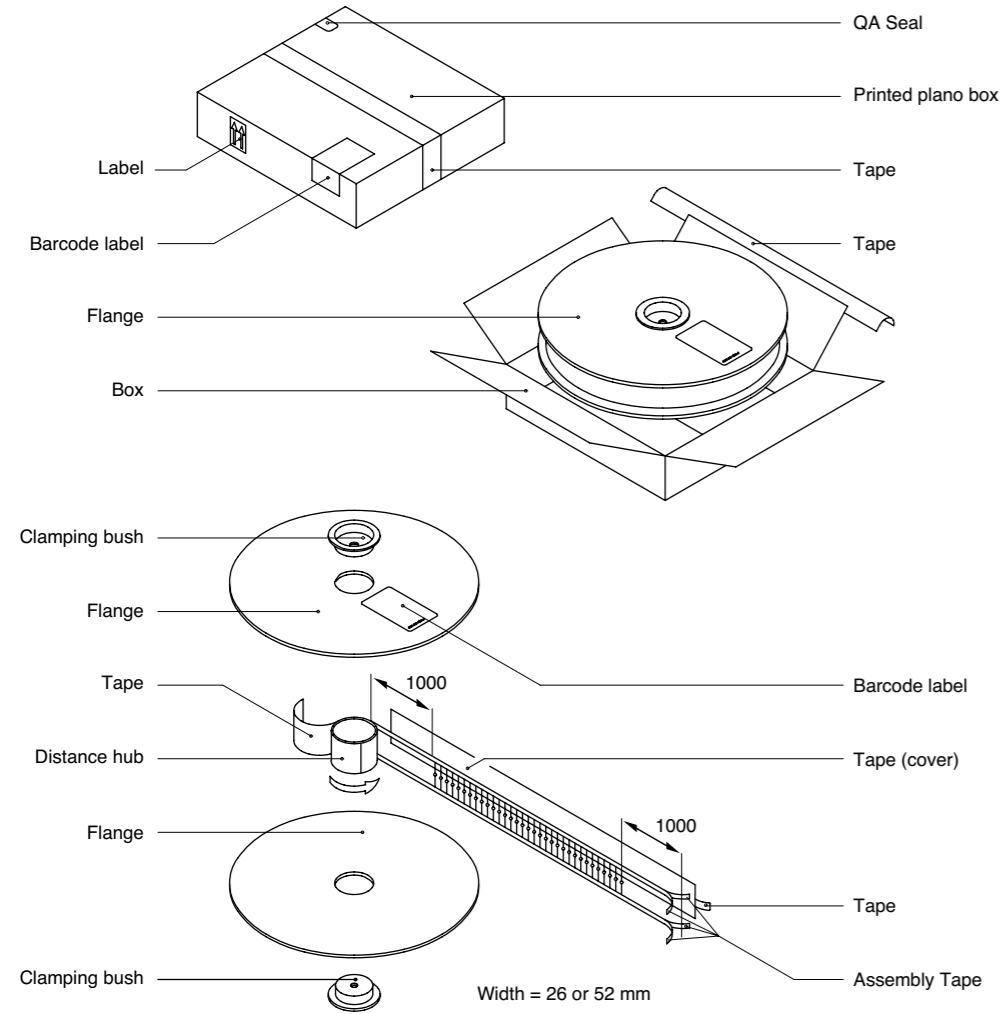
Standard product orientation SOT89 (T3)



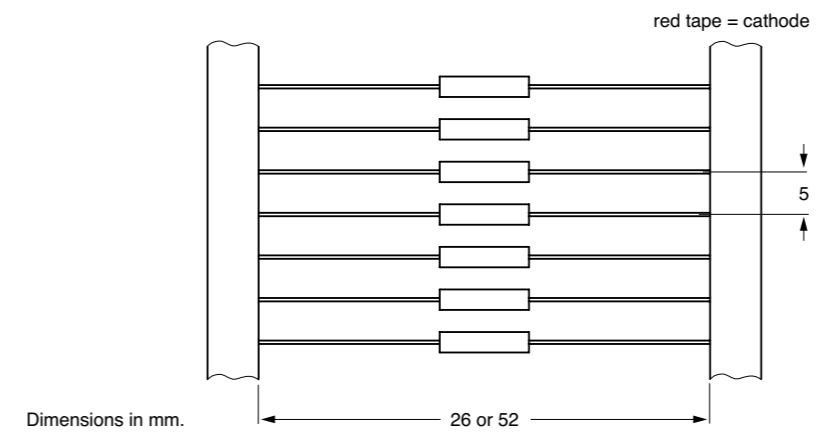
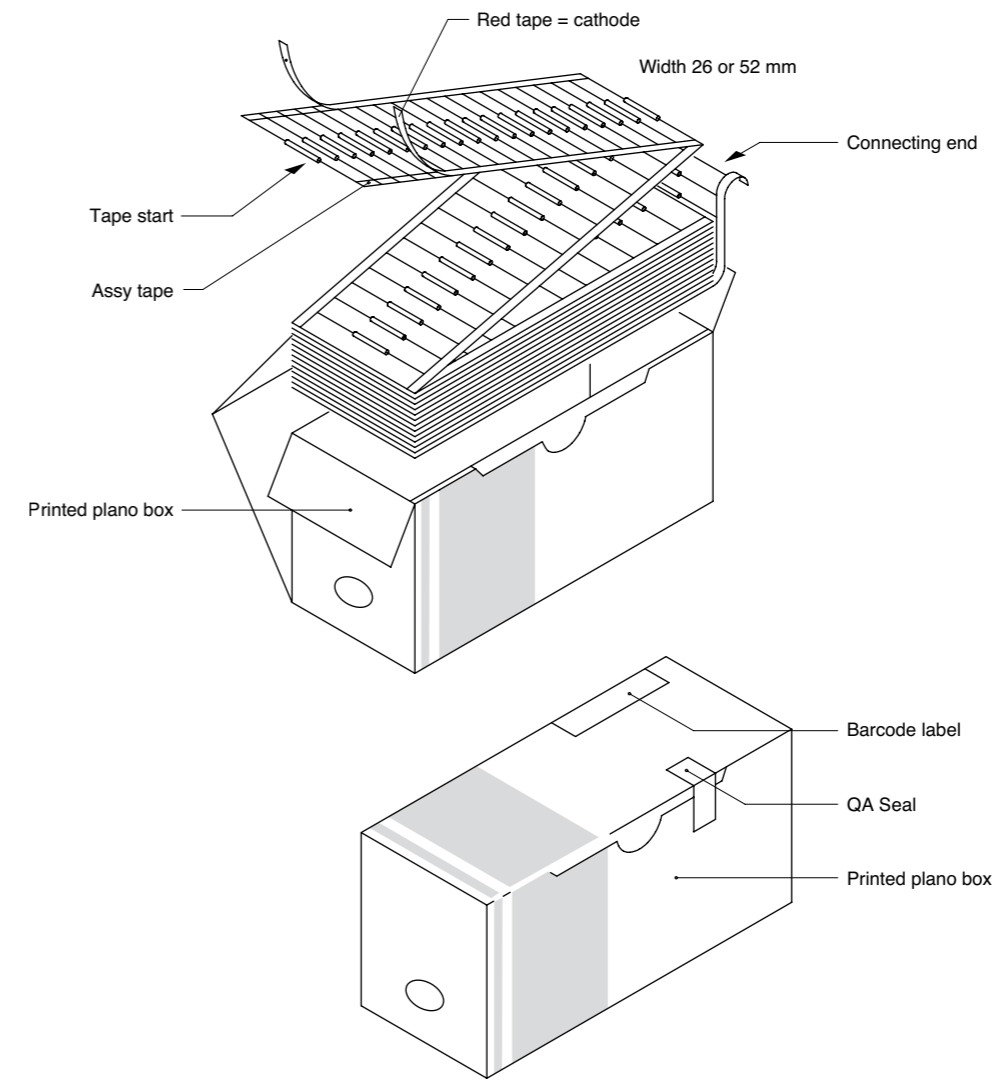
#### T4 taping



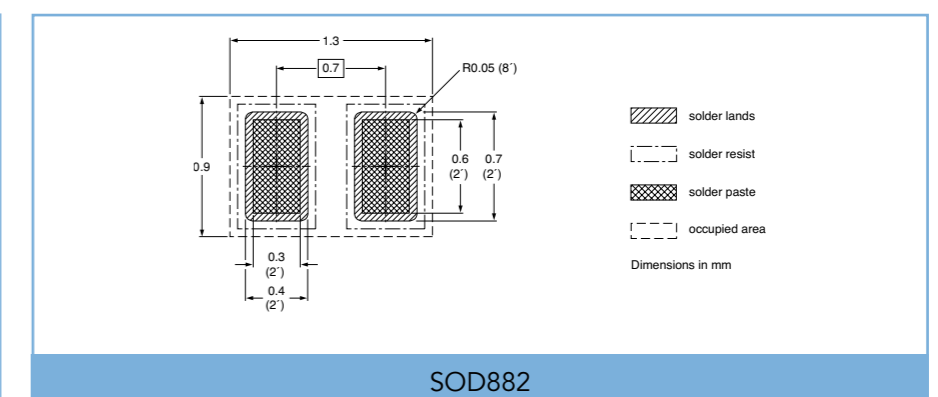
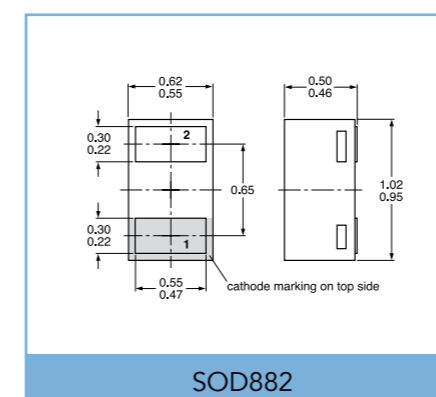
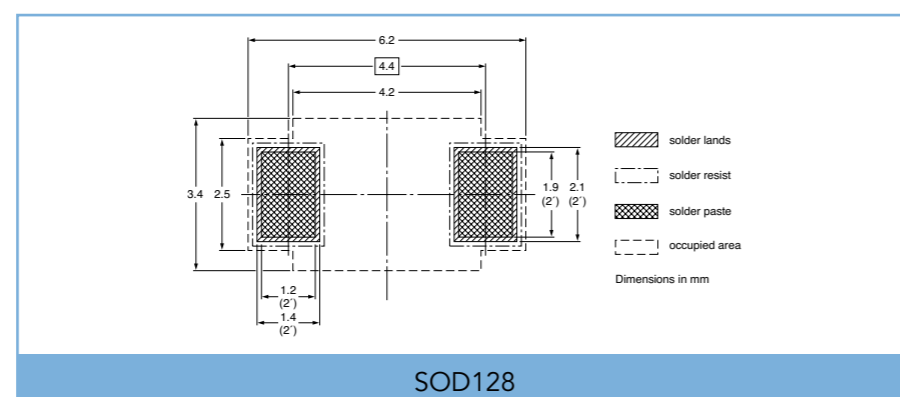
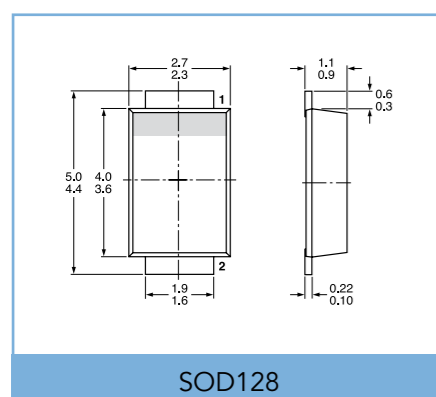
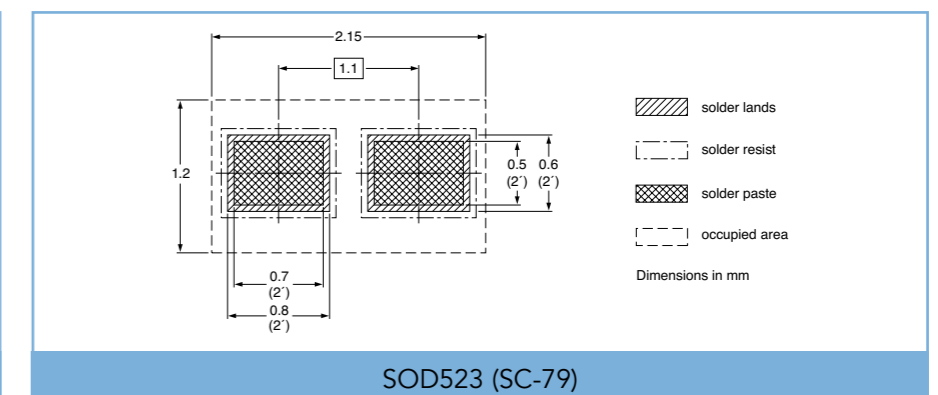
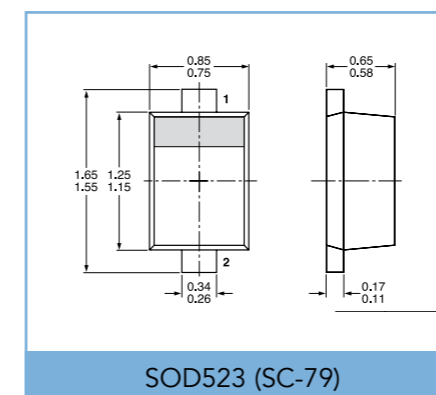
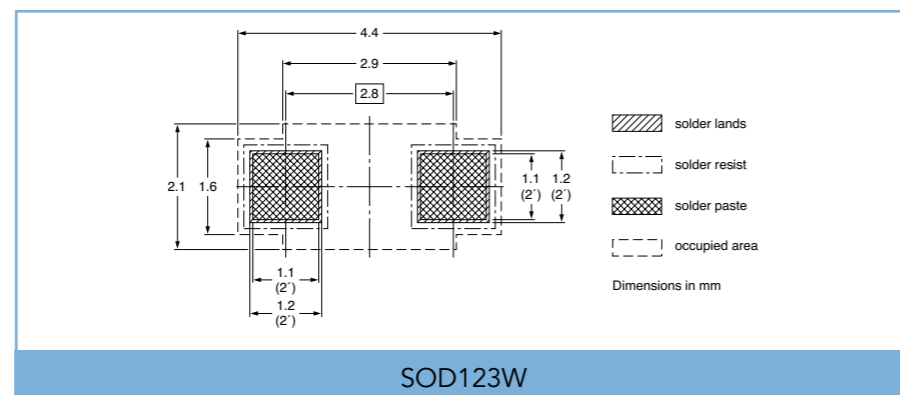
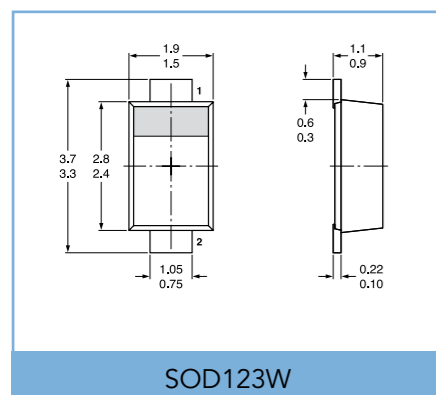
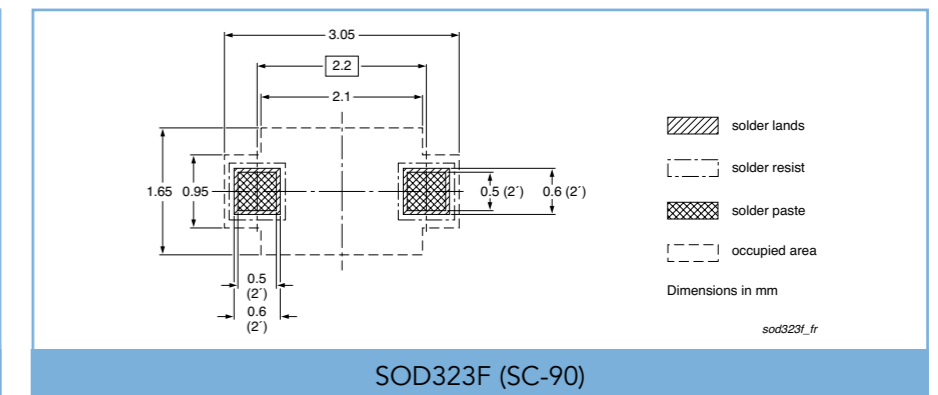
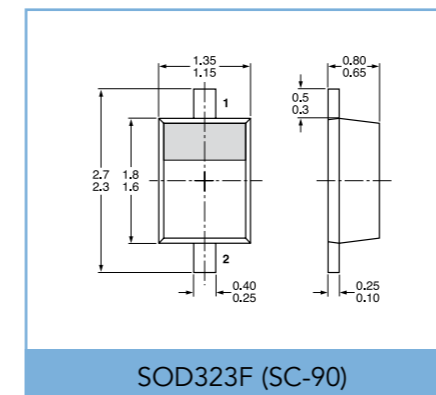
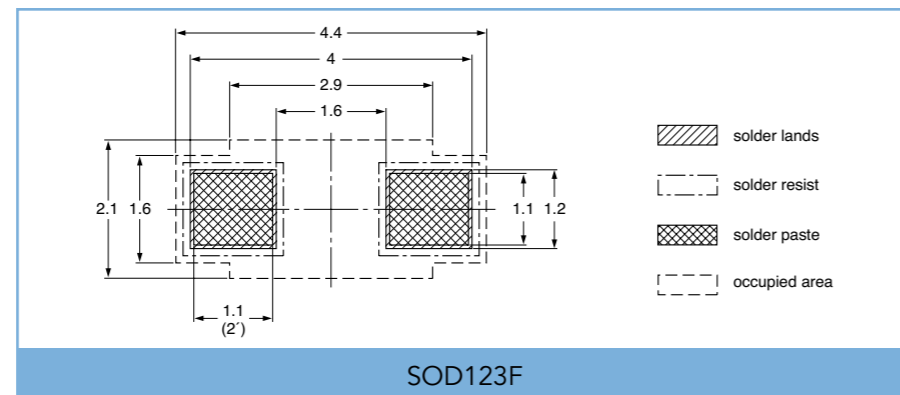
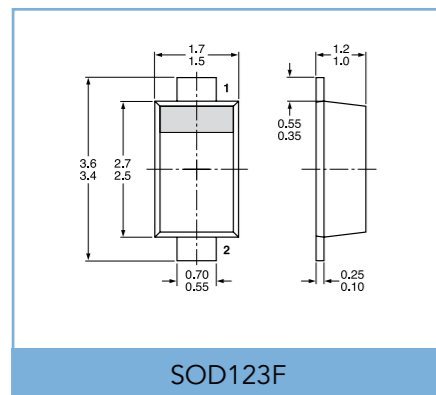
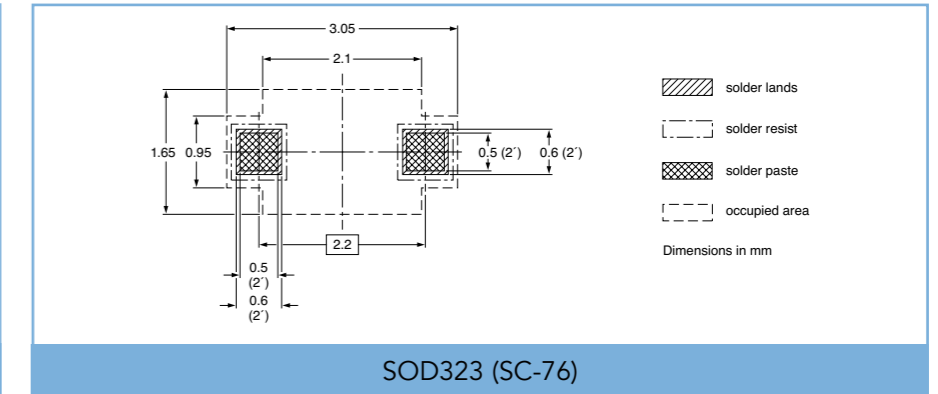
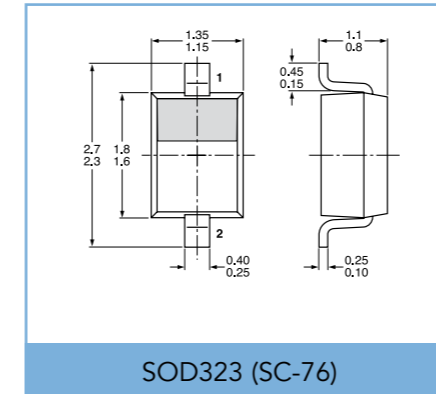
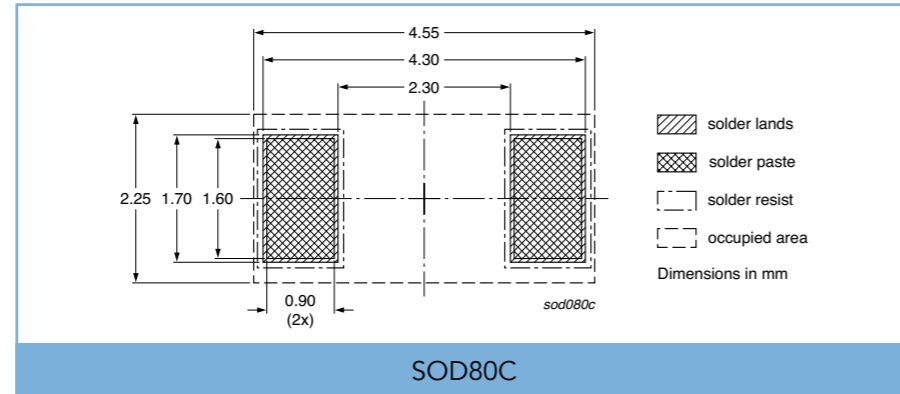
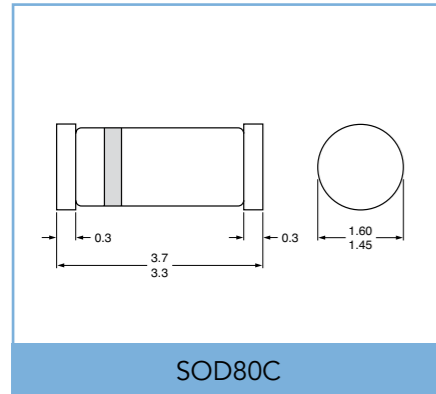
### Reel pack axial tape for glass diodes



### Ammo pack axial tape for glass diodes



## 2-Pin SMD Packages



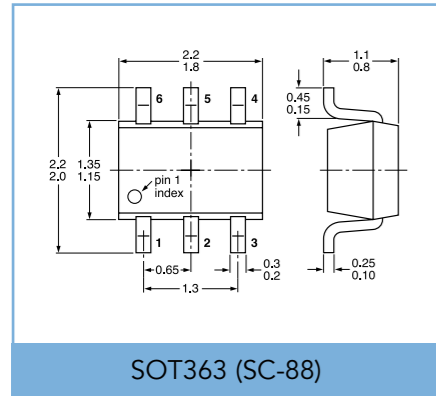




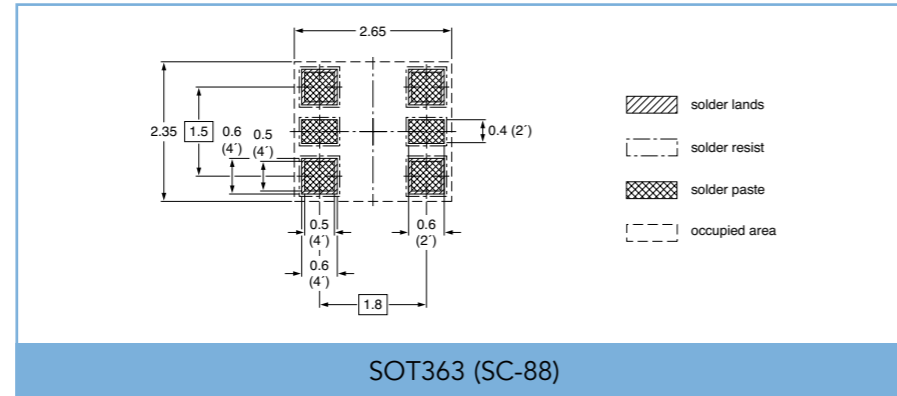




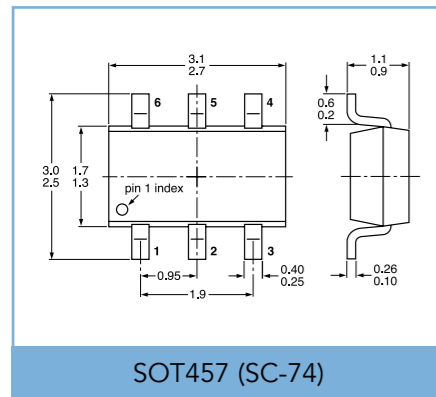
### 6-Pin SMD Packages



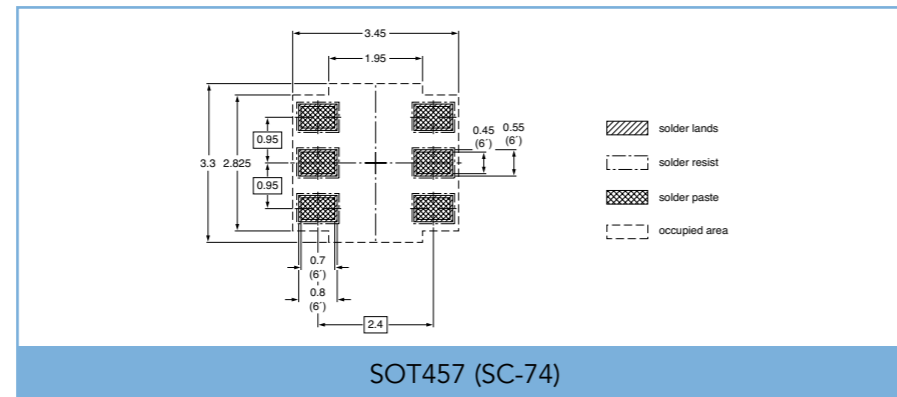
SOT363 (SC-88)



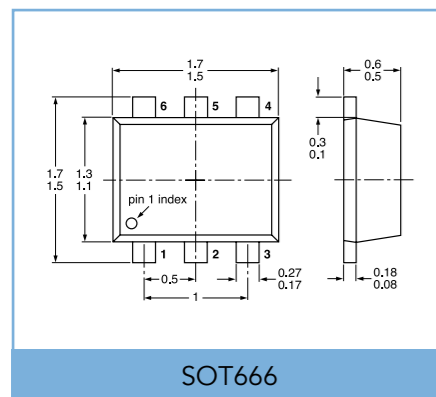
SOT363 (SC-88)



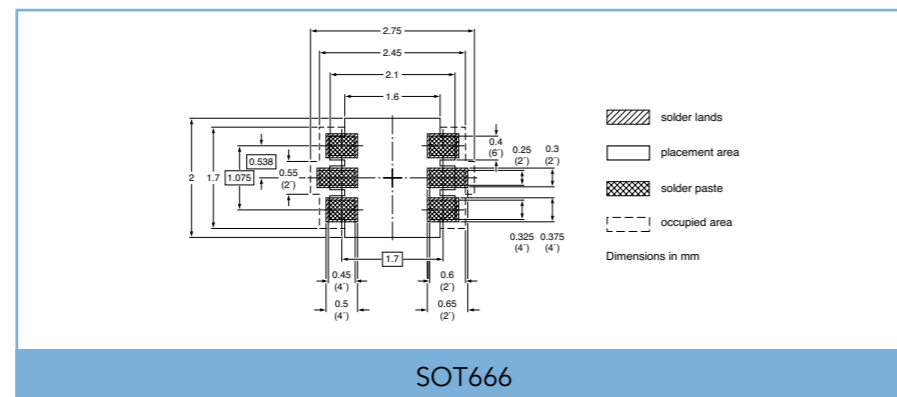
SOT457 (SC-74)



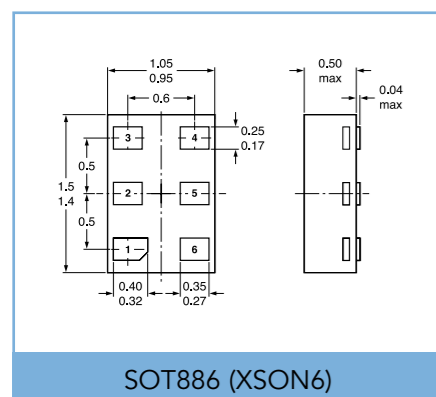
SOT457 (SC-74)



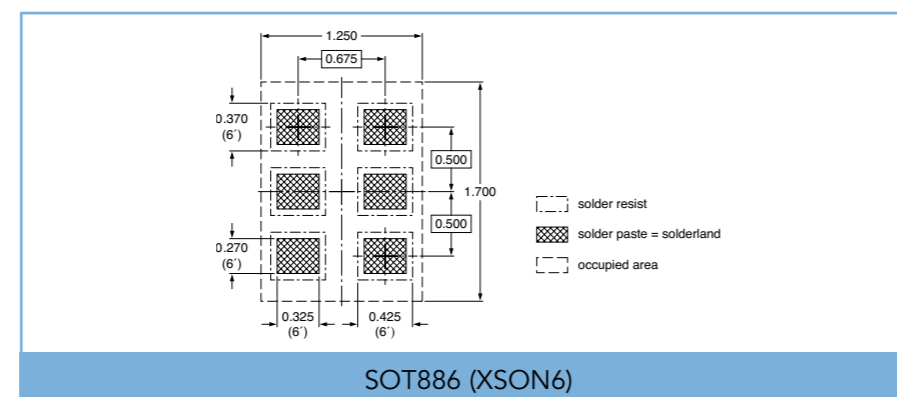
SOT666



SOT666

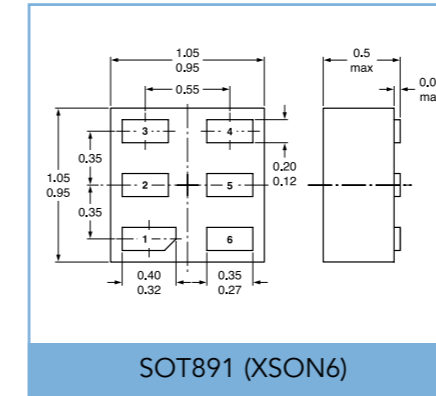


SOT886 (XSON6)

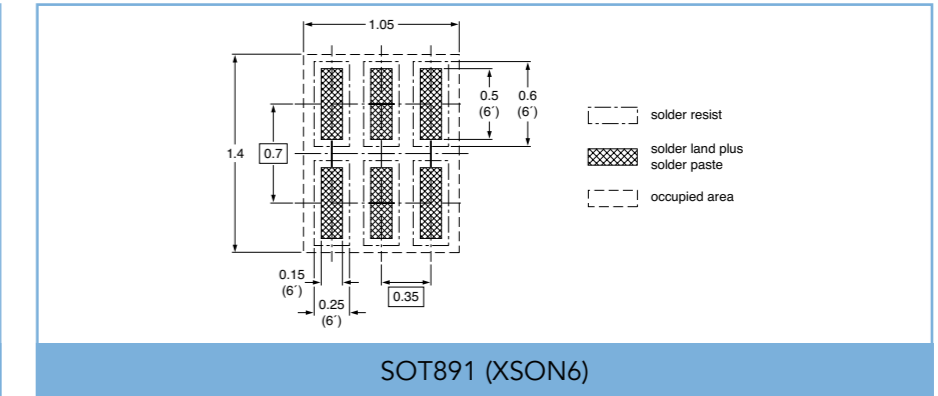


SOT886 (XSON6)

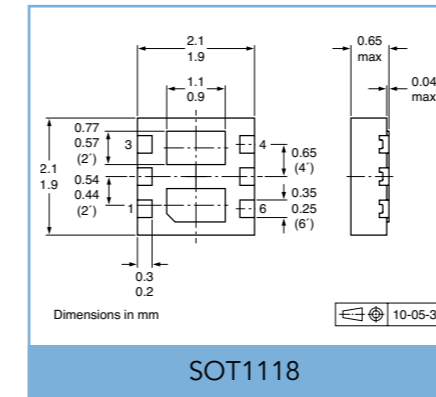
Dimensions in mm



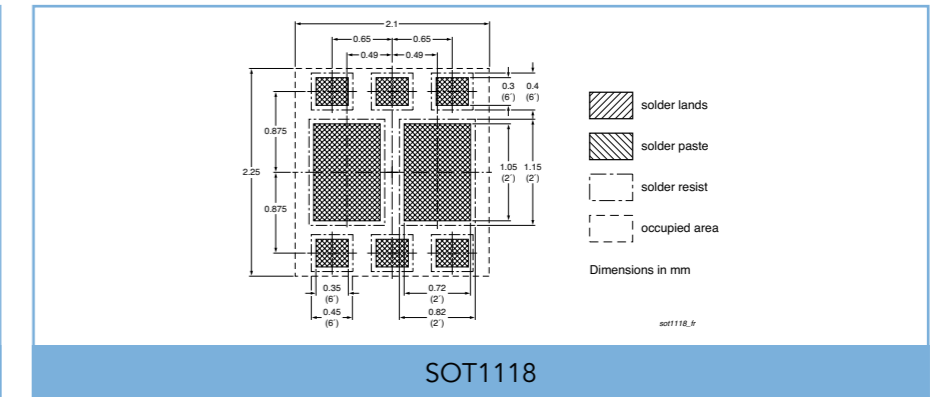
SOT891 (XSON6)



SOT891 (XSON6)

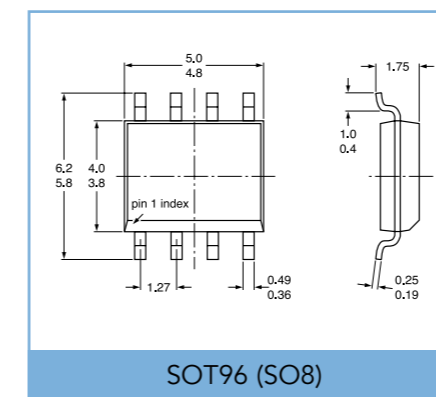


SOT1118

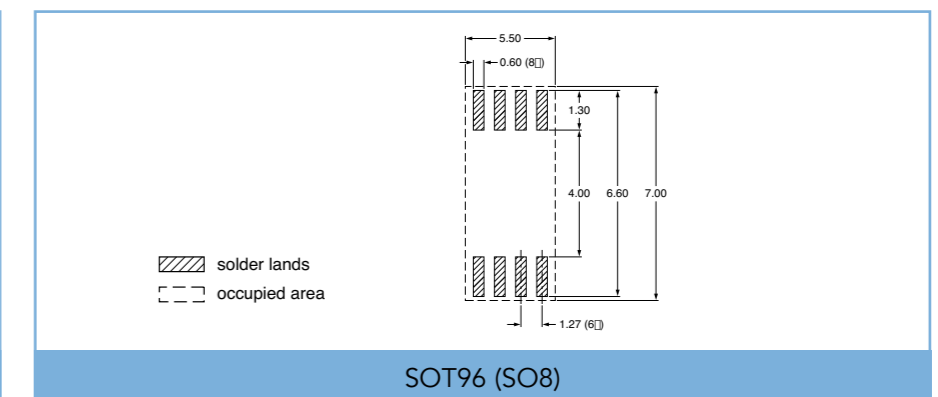


SOT1118

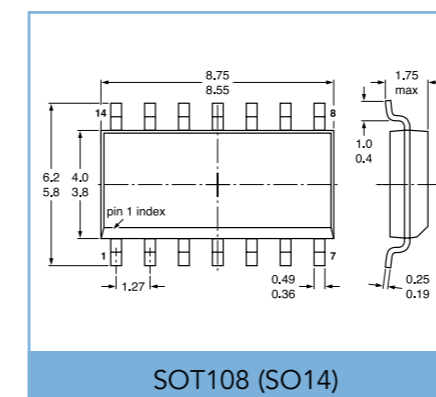
### Multi-Pin SMD Packages



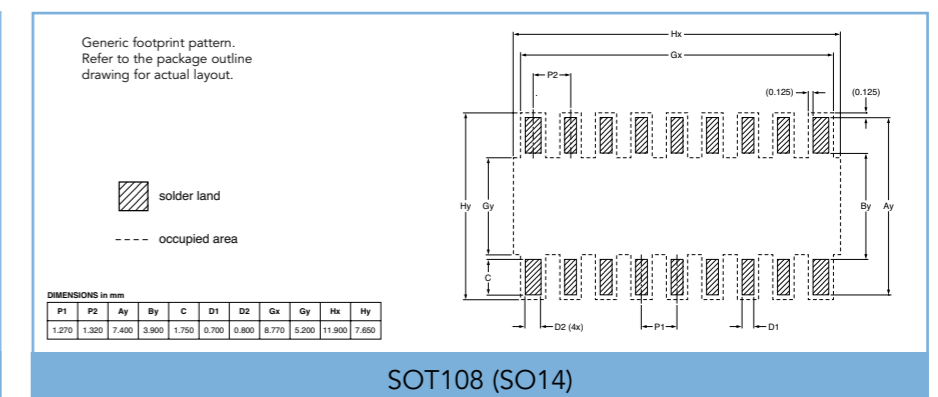
SOT96 (SO8)



SOT96 (SO8)



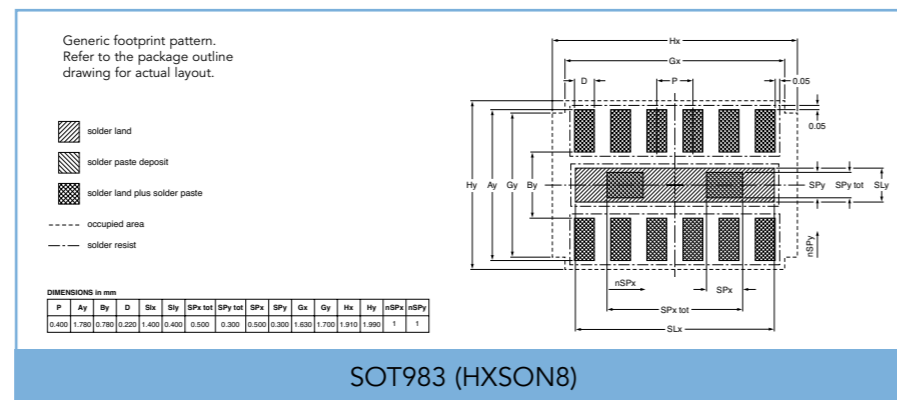
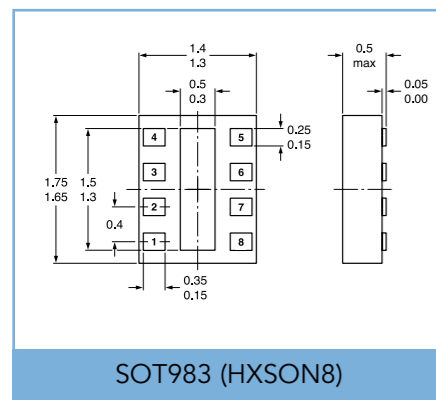
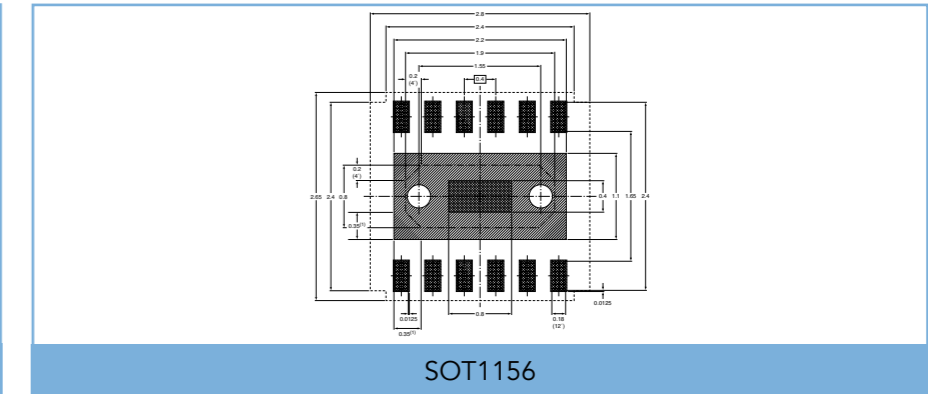
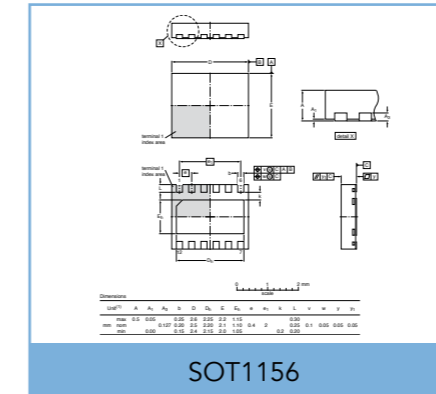
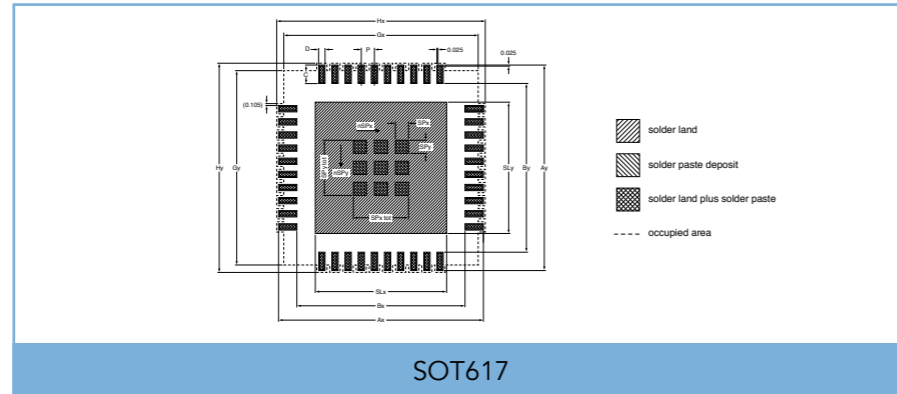
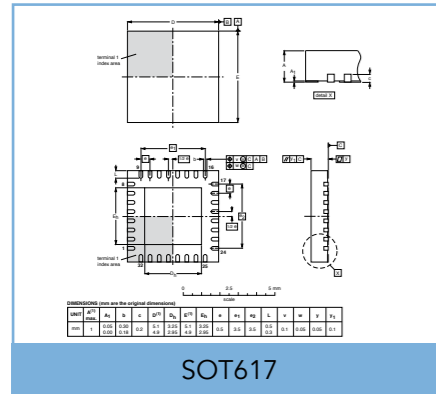
SOT108 (SO14)



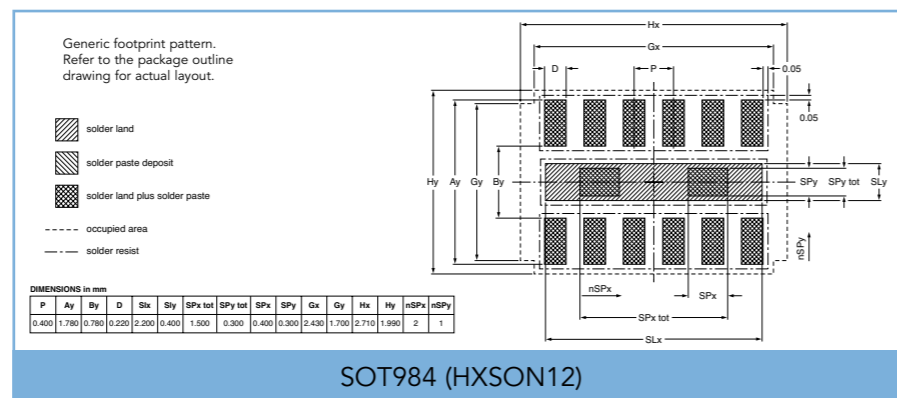
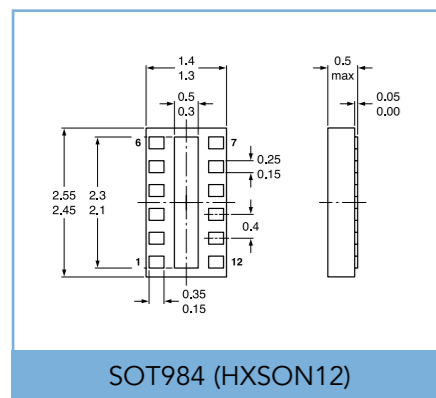
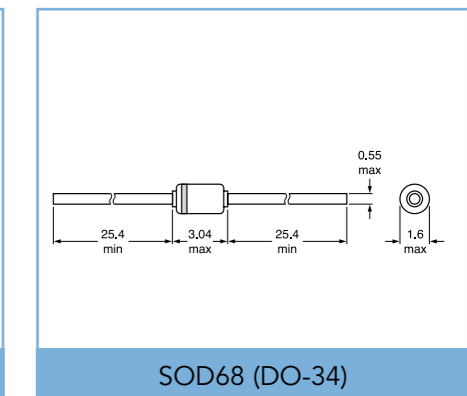
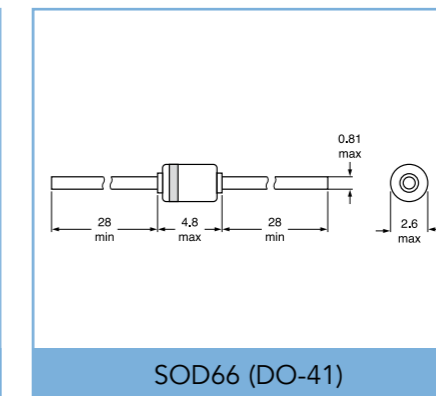
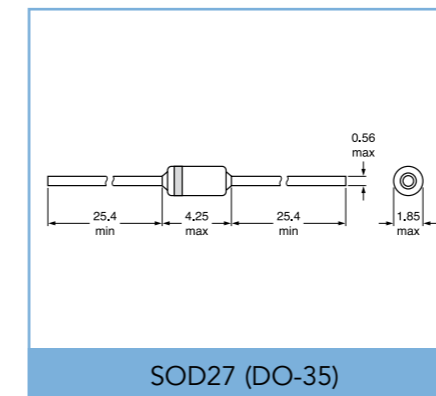
SOT108 (SO14)

Dimensions in mm

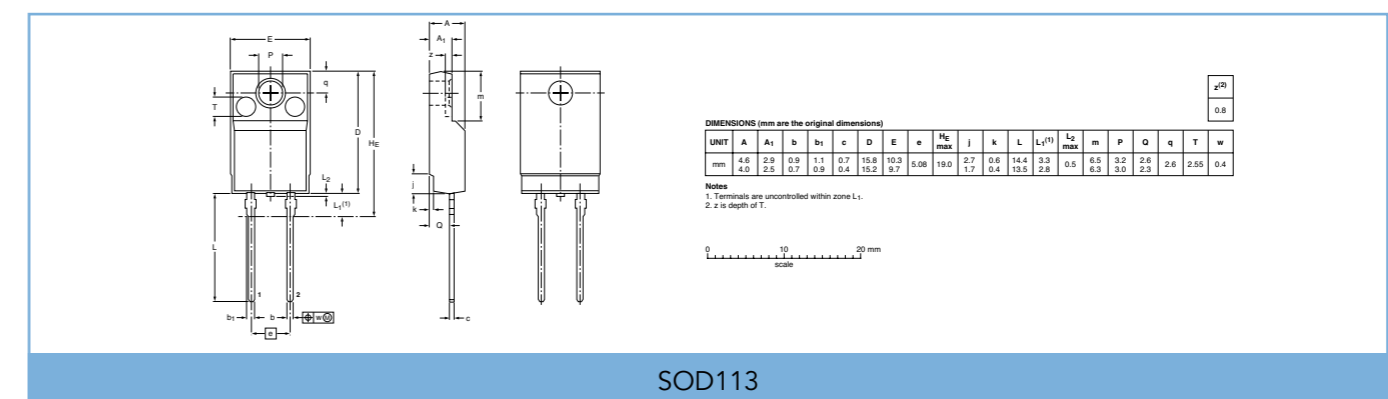
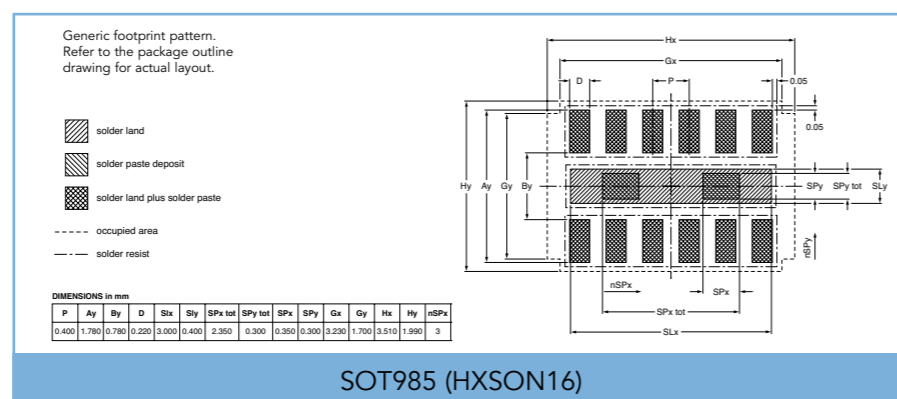
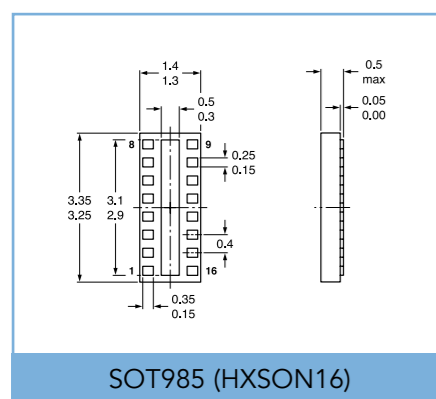
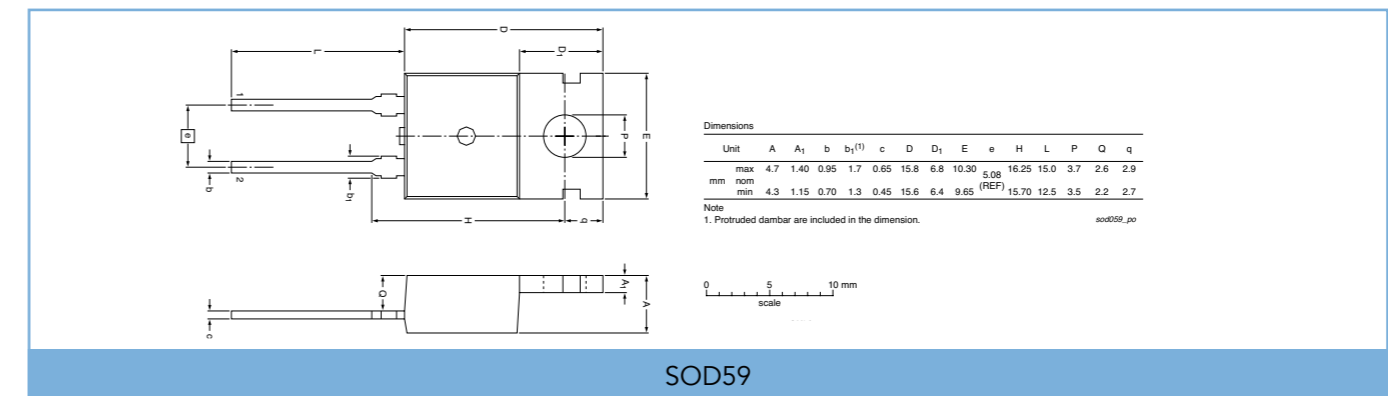




Glass diodes



Through Hole Packages



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	b	b <sub>1</sub>	c	D	d	E	e	e <sub>1</sub>	L	L <sub>1</sub> <sup>(1)</sup> max.
mm	5.2	0.48	0.66	0.45	4.8	1.7	4.2	2.54	1.27	14.5	2.5
	5.0	0.40	0.55	0.38	4.4	1.4	3.6			12.7	

**Note**  
1. Terminal dimensions within this zone are uncontrolled to allow for flow of plastic and terminal irregularities.

0 2.5 5 mm  
scale

**SOT54**

**DIMENSIONS (mm are the original dimensions)**

UNIT	A <sub>1</sub>	b	b <sub>1</sub>	b <sub>2</sub>	c	D	D <sub>1</sub>	E	e	e <sub>1</sub>	j	K	L	L <sub>1</sub>	L <sub>2</sub> <sup>(1)</sup> max.	P	Q	q	y <sup>(2)</sup>	w	
mm	4.6	2.9	0.9	1.1	1.4	0.7	15.8	6.5	10.3	2.54	5.08	2.7	0.6	14.4	3.30	3	3.2	2.6	3.0	2.5	0.4
	4.0	2.5	0.7	0.9	1.0	0.4	15.2	6.3	9.7		1.7	0.4	13.5	2.79		3.0	2.3	2.6	2.5		

**Notes**  
1. Terminal dimensions within this zone are uncontrolled.  
2. Both recesses are  $\pm 2.5^\circ$  0.8 max. depth.

0 5 10 mm  
scale

**SOT186A**

**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub>	b	b <sub>1</sub> <sup>(2)</sup>	b <sub>2</sub> <sup>(2)</sup>	c	D	D <sub>1</sub>	E	e	L	L <sub>1</sub> <sup>(1)</sup>	L <sub>2</sub> <sup>(1)</sup> max.	p	q	Q
mm	4.7	1.40	0.9	1.6	1.3	0.7	16.0	6.6	10.3	2.54	15.0	3.30	3.0	3.8	3.0	2.6
	4.1	1.25	0.6	1.0	1.0	0.4	15.2	5.9	9.7		12.8	2.79		3.5	2.7	2.2

**Notes**  
1. Lead shoulder designs may vary.  
2. Dimension includes excess dambar.

0 5 10 mm  
scale

**SOT78**

**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub>	b	b <sub>1</sub>	c	D max	D <sub>1</sub>	E	e	L	L <sub>1</sub>	Q
mm	4.5	1.40	0.85	1.3	0.7	11	1.6	10.3	2.54	15.0	3.30	2.6
	4.1	1.27	0.60	1.0	0.4		1.2	9.7		13.5	2.79	2.2

0 5 10 mm  
scale

**SOT226**

**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub>	b	b <sub>1</sub>	b <sub>2</sub>	c	D	D <sub>1</sub> ref	E	e	L	L <sub>1</sub> ref	p	Q	q	w
mm	4.7	1.40	0.9	1.4	1.72	0.6	16.0	6.5	10.3	2.54	14.0	3.0	3.7	2.6	3.0	0.2
	4.3	1.25	0.6	1.1	1.32	0.4	15.2	5.9	9.7		12.8	2.79	3.5	2.2	2.7	

0 5 10 mm  
scale

**SOT78D**

**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub>	b	c	D <sub>1</sub>	D <sub>2</sub>	E	E <sub>1</sub>	e	e <sub>1</sub>	L	L <sub>1</sub> <sup>(2)</sup> max.	Q	w
mm	2.38	0.93	0.89	0.56	1.10	6.22	6.73	5.21	4.57	2.285	9.6	2.7	1.1	0.3
	2.22	0.46	0.71	0.46	0.96	5.98	6.47	5.00	BSC <sup>(1)</sup>	BSC <sup>(1)</sup>	9.2		1.0	

**Notes**  
1. Basic spacing between centers.  
2. Terminal dimensions are uncontrolled within zone L<sub>1</sub>.

0 2.5 5 mm  
scale

**SOT533**

**DIMENSIONS (mm are the original dimensions)**

UNIT	A	b	c	D	E	e	e <sub>1</sub>	L	L <sub>1</sub> <sup>(1)</sup> max.	P	Q	q	w
mm	2.8	0.88	0.58	11.1	7.8	2.29	4.58	16.5	2.54	3.1	1.5	3.9	0.254
	2.3	0.65	0.47	10.5	7.2			15.3		2.5	0.9	3.5	

**Note**  
1. Terminal dimensions within this zone are uncontrolled to allow for body and terminal irregularities.

0 2.5 5 mm  
scale

**SOT82**