

Sheet1

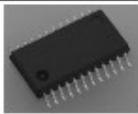









Shawtronics USA	Diagnosys PN#	Package Type	Number of pins	Pitch
QVSOP-80	41-0012	QVSOP	80	.5MM
TSOP-50	41-0020	TSOP	50	0.8MM
CSOP-14	41-0031	CSOP	14	1.25MM
CSOP-16	41-0041	CSOP	16	1.25MM
CSOP-20	41-0051	CSOP	20	1.25MM
CSOP-28	41-0071	CSOP	28	1.25MM
CSOP-42	41-0091	CSOP	42	0.05"
QFP-48	41-0101	QFP	48	.8MM
PQFP-56	41-0111	PQFP	56	.8MM
TQFP-68	41-0121	TQFP	68	.8MM
SSOP-16	41-0141	SSOP	16	1 MM
SSOP-16-025	41-0150	SSOP	16	0.025
TSOP-54	41-0160	TSOP	54	.8MM
TSOP-65/70	41-0170	TSOP	64/70	.65MM
QFP-52	41-0180	QFP	52	.65MM
TQFP-32	41-0191	TQFP	32	.8MM
SSOP-20	41-0200	SSOP	20	0.025"
PQFP-64	41-0210	PQFP	64	.5MM
TSOP-56	41-0221	TSOP	56	.5MM
TSSOP-56	41-0232	TSSOP	56	.5MM
TSSOP-48	41-0242	TSSOP	48	.5MM
SSOP-20	41-0250	SSOP	20	.65MM
SSOP-24-1	41-0260	SSOP	24	.65MM
PQFP-100	41-0270	PQFP	100	.65MM
PQFP-100-2	41-0280	PQFP	100	.5MM
PQFP-64	41-0290	PQFP	64	.8MM
SSOP-24-2	41-0300	SSOP	24	0.025"
TLQFP-100	41-0310	T/L QFP	100	.65MM
QFP-144-1	41-0320	QFP	144	.65MM
PGA-100	41-0380	PGA	100	0.1"
SMD-10	41-0400	SMD?	10	.5MM
SMD-14	41-0440	SMD?	14	.05"
LCC-20	41-0451	LCC	20	.05"
QFP-80-1	41-0460	QFP	80	.8MM
PLCC-28	41-0480	PLCC	28	.05"
PLCC-44	41-0490	PLCC	44	.05"
QFP-132	41-0500	QFP	132	.025"
QFP-72	41-0520	QFP	72	.05"
BQFP-100	41-0530	BQFP	100	.025"
SSOP-64	41-0540	SSOP	64	.8MM
TSSOP-14	41-0560	TSSOP	14	.65MM
TSSOP-16	41-0570	TSSOP	16	.65MM
SSOP-8	41-0580	SSOP	8	.65MM
SSOP-14	41-0590	SSOP	14	.65MM
SSOP-16	41-0600	SSOP	16	.65MM
SSOP-48	41-0650	SSOP	48	.025"
QFP-144-2	41-0720	QFP	144	.65MM
CQFP-68	41-0730	CQFP	68	.05"
CQFP-84	41-0740	CQFP	84	.05"
LCC-32	41-0751	LCC	32	.05"
BQFP-132	41-0760	BQFP	132	.025"




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PGA-68	41-0770	PGA/PLCC	68	.1"
PQFP-208	41-0780	PQFP	208	.5MM
TQFP-44	41-0790	TQFP	44	.8MM
SSOP-56	41-0800	SSOP	56	.025"
PGA-84	41-0810	PGA/PLCC	84	.1"
PGA-192	41-0820	PGA	192	.1"
SSOP-28	41-0830	SSOP	28	.65MM
TSSOP-28	41-0840	TSSOP	28	.65MM
CDF-32	41-0850	CDF	32	.05"
LCC-28	41-0860	LCC	28	.05"
PGA-141	41-0870	PGA	141	.05"
TSOP2-44	41-0880	TSOP2	44	.8MM
QFP-144-3	41-0890	QFP	144	.5MM
TSSOP-28	41-0900	TSSOP	28	.65MM
TSSOP-8	41-0920	TSSOP	8	.65MM
TQFP-128	41-0930	TQFP	128	.4MM
TQFP-120	41-0940	TQFP	120	.4MM
SPQFP-48	41-0950	S-PQFP	48	.5MM
TSOP-48	41-0990	TSOP	48	.5MM
VSOP-28	41-1000	VSOP	28	.55MM
TSOP-32	41-1010	TSOP	32	.5MM
TSSOP-20	41-1020	TSSOP	20	.65MM
PGA-81	41-1030	PGA	81	.1"
PGA-168	41-1040	PGA	168	.1"
TQFP-144	41-1060	TQFP	144	.4MM
HYSOIC-22	41-1080	HYSOIC	22	.05"
TSSOP-56	41-1100	TSSOP	56	.8MM
SSOP-18	41-1120	SSOP	18	.65MM
TSSOP-24	41-1130	TSSOP	24	.65MM
TSOP1-32	41-1210	TSOP1	32	.5MM
LCC-40	41-1220	LCC	40	.04"
PGA-48	41-1230	PGA	48	.04"
LCC-68	41-1240	LCC	68	.05"
LCC-84	41-1250	LCC	84	.05"
TSOP-40	41-1290	TSOP	40	.5MM
QFP-128	41-1300	QFP	128	.5MM
LCC-44	41-1340	LCC	44	.05"
LCC-52	41-1350	LCC	52	.05"
QFP-52	41-1380	QFP	52	1MM
QFP-112	41-1400	QFP	112	.65MM
QFP-64	41-1410	QFP	64	1MM
QFP-80-2	41-1420	QFP	80	.65MM
SOP-44	41-1430	SOP	44	.05"
QFP-168	41-1450	QFP	168	.65MM
QFP-44	41-1460	QFP	44	.8MM
QFP-80-3	41-1470	QFP	80	.5MM
SO10-10	41-1480	SO-10	10	.05"
SOC-4	41-1550	SOC	4	.1"
DIL-6	41-1630	DIL	6	.1"
SOP-30	41-1650	SOP	30	.5MM
SOP-24	41-1660	SOP	24	.4MM
SOP-38	41-1680	SOP	38	.5MM
HDPGA-132	41-1690	HD PGA	132	.075"

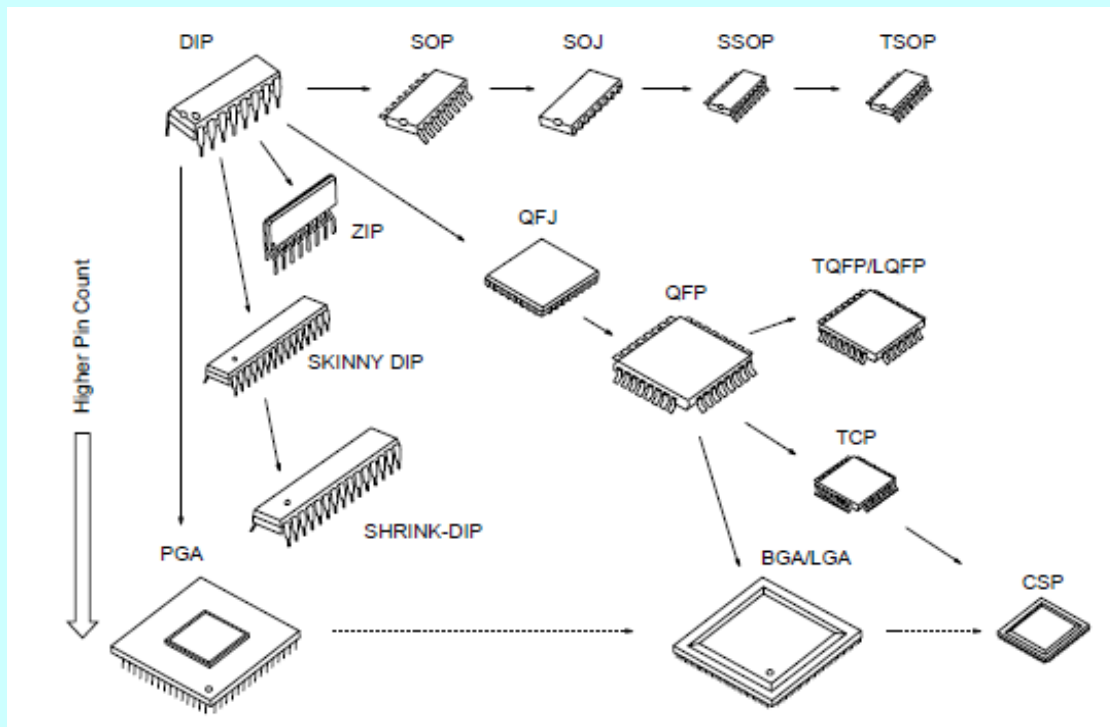
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PGA-132	41-1700	PGA	132	.1"	
PGA-120	41-1710	PGA	120	.1"	
PLCC-20	41-1720	PLCC	20	.05"	
PLCC-32	41-1730	PLCC	32	.05"	
DDC70-70	41-1780	DDC 70	70	.05"	
CERBRAZ-164	41-1790	CER BRAZ	164	.025"	
SOIC-48	42-0010	SOIC	48	.05"	
SOIC-28	42-0150	SOIC	28	.05"	
CQFP-68	41-0730	CQFP	68	.05"	LOCKHEED
LQFP-144	NA	LQFP	144	.5MM	LOCKHEED
TQFP-44	NA	TQFP	44	.8MM	LOCKHEED
HTSSOP-20	NA	HTSSOP-20	20	.65MM	LOCKHEED
QFP-84	41-0740	QFP	84	.05"	LOCKHEED
TQFP-100	NA	TQFP	100	.5MM	LOCKHEED
DIL STD-8	NA	DIL STD	8	.1"	
DIL STD-10	NA	DIL STD	10	.1"	
DIL STD-12	NA	DIL STD	12	.1"	
DIL STD -14	NA	DIL STD	14	.1"	
DIL STD -16	NA	DIL STD	16	.1"	
DIL STD -18	NA	DIL STD	18	.1"	
DIL STD -20	NA	DIL STD	20	.1"	
DIL STD -22	NA	DIL STD	22	.1"	
DIL STD -24	NA	DIL STD	24	.1"	
DIL STD -26	NA	DIL STD	26	.1"	
DIL STD -28	NA	DIL STD	28	.1"	
DIL STD -30	NA	DIL STD	30	.1"	
DIL STD -32	NA	DIL STD	32	.1"	
DIL WIDE-24	NA	DIL WIDE	24	.1"	
DIL WIDE-26	NA	DIL WIDE	26	.1"	
DIL WIDE-28	NA	DIL WIDE	28	.1"	
DIL WIDE-32	NA	DIL WIDE	32	.1"	
DIL WIDE-36	NA	DIL WIDE	36	.1"	
DIL WIDE-40	NA	DIL WIDE	40	.1"	
DIL WIDE-	NA	CAN TYPE	8	CIRCULAR	
DIL WIDE-	NA	CAN TYPE	10	CIRCULAR	

Type	Package Types		Package Symbol		Pin Count	
			Old	New		
Surface Mounting Type	Plastic		MS	MA	8, 16	
			GS	MA	24, 28, 32, 40, 44	
			MS	MB	20	
			GS	MB	30, 32, 60, 64, 70	
			GS-B	MB	60	
		TSOP(1)		TS	TA	32, 40* ¹
		TSOP(2)				26/20, 26/24, 28/24, 28, 32, 44/40, 44, 48, 50/44, 50, 54, 66* ¹ , 70/64, 70, 86* ¹
		QFP		GS	GA	44, 56, 64, 80, 100, 128, 160, 208, 240, 272, 304
				GS-2	GA	44, 56
				GS-B	GA	64, 80, 100
		High Heat Dissipation QFP* ²		GS-C	GA	208
		TQFP		TS	TB	44, 48, 64, 80, 100, 120
		LQFP		GS	TC	144, 176, 208
		SOJ		JS (SJ)	JA	26/20, 26/24, 28/24, 28, 32, 36, 40, 42, 50
		QFJ (PLCC)		JS	JB	18, 20, 22, 28, 32, 44, 68, 84
		BGA/FBGA		LS	LA	48, 84, 104, 144, 176, 224, 256, 352, 420, 560
FLGA		—	LB	49, 56, 84		
Wafer Level CSP (W-CSP)		—	HA, HB	Custom design		

Type	Package Types		Package Symbol		Pin Count	
			Old	New		
Through-hole Mounting Type	Ceramic	Standard DIP		AS	AA	14, 16, 18, 20, 22, 24, 28, 40, 42, 48
		CER-DIP		AS	AB	8, 14, 16, 18, 22, 24, 28, 32, 40, 42
		PGA		AS	BA	73 ^{x2} , 88, 133 ^{x2} , 177 ^{x2} , 209 ^{x2} , 257 ^{x2} , 301 ^{x2} , 240, 365 ^{x2} , 400

Type	Package Types		Package Symbol		Pin Count		
			Old	New			
Through-hole Mounting Type	Plastic	DIP	Standard		RS	RA	8, 14, 16, 18, 20, 22, 24, 28, 32, 36, 40, 42, 48
			Skinny		RS	RC	20, 22
			Shrink		SS	RB	30, 42, 64
		ZIP		ZS	RD	20, 24, 28, 40	



Material	Package Name	Lead Pitch (mm)	Nominal Size (mil)	Number of Pins																											
				8	14	16	18	20	22	24	28	30	32	36	40	42	48	64	73	88	133	177	209	240	257	301	368	400			
Plastic	DIP	2.54	300mil	●	●	●	●																								
			300(WIDE)					●																							
			400mil						●																						
			600mil							●	●	●	●	●	●	●	●														
	Skinny DIP	2.54	300mil					●	●																						
			400mil									●																			
			600mil																												
	SDIP	1.778	750mil																												
			400mil						●	●																					
			600mil																												
ZIP	1.27	400(WIDE)						●																							
		475mil																													
		600mil																													
Ceramic	DIP	2.54	300mil		●	●	●	●																							
			400mil							●																					
			600mil								●	●																			
	CER-DIP	2.54	300mil	●	●	●	●																								
			400mil							●																					
			600mil								●	●																			
	WDIP	2.54	600mil																												
	PGA	1.27	—																												
		2.54	—																												

