

SMD cheat sheet










PASSIVE RECTANGULAR

IMP	Size	MET	Power Rating (resistors)
01005	-	0402	0.031W
0201	-	0603	0.05W
0402	-	1005	0.062W - 0.1W
0603	-	1608	0.1W
0805	-	2012	0.125W
1008	-	2520	
1206	-	3216	0.25W
1210	-	3225	0.5W
1806	-	4516	
1812	-	4532	0.75W
2010	-	5025	0.75W
2512	-	6332	1W







TANTALUM CAPACITORS

EIA	Size	KEMET	AVX	Dimensions
2012-12	-	R	R	2.0 × 1.3 × 1.2
3216-10	-	I	K	3.2 × 1.6 × 1.0
3216-12	-	S	S	3.2 × 1.6 × 1.2
3216-18	-	A	A	3.2 × 1.6 × 1.8
3528-12	-	T	T	3.5 × 2.8 × 1.2
3528-21	-	B	B	3.5 × 2.8 × 2.1
6032-15	-	U	W	6.0 × 3.2 × 1.5
6032-28	-	C	C	6.0 × 3.2 × 2.8
7260-30	-	E	V	7.3 × 6.0 × 3.0
7343-20	-	V	Y	7.3 × 4.3 × 2.0
7343-31	-	D	D	7.3 × 4.3 × 3.1
7343-43	-	X	E	7.3 × 4.3 × 4.3




ALUMINIUM CAPACITORS

Panasonic	Size	Chemi-Con	Dimensions
A		B	3.3 × 3.3
B		D	4.3 × 4.3
C		E	5.3 × 5.3
D		F	6.6 × 6.6
E/F		H	8.3 × 8.3
G		J	10.3 × 10.3
H		K	13.0 × 13.0
J		L	17.0 × 17.0
K		M	19.0 × 19.0




SOD (Small Outline Diode)

CODE	Size	Alt	Dimensions
SOD-723			1.4 × 0.6 × 0.59
SOD-523		SC-79	1.25 × 0.85 × 0.65
SOD-323		SC-90	1.7 × 1.25 × 0.95
SOD-128			5 × 2.7 × 1.1
SOD-123			3.68 × 1.17 × 1.6
SOD-80C			3.5 × 1.5















MELF (Metal Electrode Leadless Face)

CODE	Size	Alt	l × diam	Typical Rating
MicroMELF		0102	MMJ	2.2 × 1.1 0.2W to 0.3W / 150V
MiniMELF		0204	MMA	3.6 × 1.4 0.25W to 0.4W / 200V
MELF		0207	MMB	5.8 × 2.2 0.4W to 1W / 300V



DO-214


CODE	Size	Alt	Dimensions
DO-214AA		SMB	5.3 × 3.6 × 2.25
DO-214AB		SMC	7.95 × 5.9 × 2.25
DO-214AC		SMA	5.2 × 2.6 × 2.15

Hole Diameter









.5	.6	.7	.8	.9	1
					
1.2	1.4	1.5	1.6		
					
2.2	2.8	3	3.2		
					

Density Level






A		Very Robust Solder Joint
B		General Purpose Solder Joint

C		High Density Applications
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Trace Width






mil	Size	mA
6		550
8		690
10		830
12		970
18		1,320
24		1,650
30		1,940
40		2,390

Crystals & Oscillators







Code	Size	Dimensions
SX3512		8.7 × 3.4
SXE4016		10.4 × 4.2
SX4516		11.6 × 4.2
SX5020		13.2 × 5
SM495		24 × 12

LCNx		5 × 3.2
LCNx		6 × 3.5
LCNx		7 × 5
LCNx/LCCx		7 × 5

LED's Packages

Code	Size	Dimensions
2035		2.8 × 3.5
3014		3.0 × 1.4
3528		3.5 × 2.8
3535		3.5 × 3.5
5050		5.5 × 5.0



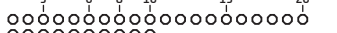
AWG

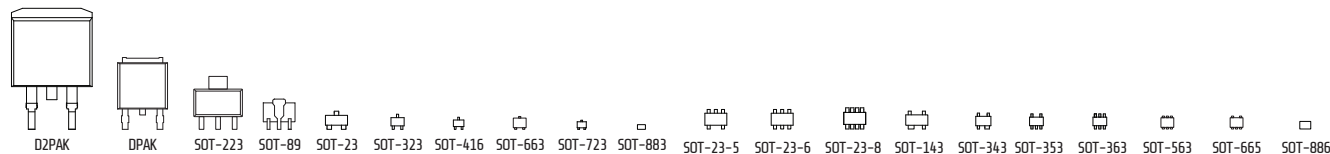
AWG	mm	Size	A
10	2.59		55A
15	1.45		28A
20	0.81		11A
25	0.45		2.7A
28	0.32		1.4A
30	0.25		860mA

Units Converter

inch	mil	mm
.008	8	.2032
.0012	12	.3047
.01574	15.748	.40
.03937	39.370	1.00
.1	100	2.54
1	1,000	25.40

Pitch Reference

2.54		3 6 8 10 15 20
2.00		3 6 8 10 15 20
1.27		3 6 8 10 15 20



Vias (mils)
15
18
20
22
24
30