

Surface Mount Components Chart

Products	Shape	Dimensions (mm)			Available Range	Packaging					Qty. in Bulk	Condition			RoHS* Compliant	
		L	W	T		Taping			Qty. / Reel	Solder						
						Carrier Tape: mm				Reflow		Flow	Washable			
						Material	Width	Pitch								
Multilayer Ceramic Chip Capacitors (CM Series)		CM02 (01005)	0.4	0.2	0.2	1pF to 22pF 100pF to 0.1µF	Plastic Paper	4 8	1 2	40,000 20,000	— 50,000	—	Yes	No	Yes	Yes
		CM03 (0201)	0.6	0.3	0.3	0.2pF to 1.0µF	Paper	8	1 2	30,000 15,000	— 50,000	5,000	Yes	No	Yes	Yes
		CM05 (0402)	1.0	0.5	0.5	0.5pF to 4.7µF	Paper	8	1 2	20,000 10,000	— 50,000	1,000 to 15,000	Yes	No	Yes	Yes
		CM105 (0603)	1.6	0.8	0.8	0.5pF to 22µF	Paper	8	2 4	8,000 4,000	20,000 10,000		Yes	Yes	Yes	Yes
		CM21 (0805)	2.0	1.25	0.6	100pF to 0.1µF	Paper	8	4	4,000	10,000		Yes	Yes	Yes	Yes
		CM316 (1206)	2.0	1.25	0.85	680pF to 0.47µF	Paper	8	4	4,000	10,000		Yes	Yes	Yes	Yes
			2.0	1.25	1.25	3300pF to 22µF	Plastic	8	4	3,000	10,000		Yes	Yes	Yes	Yes
			3.2	1.6	0.85	0.1µF	Paper	8	4	4,000	10,000		Yes	Yes	Yes	Yes
		CM32 (1210)	3.2	1.6	1.15	0.047µF to 4.7µF	Plastic	8	4	3,000	10,000		Yes	Yes	Yes	Yes
			3.2	1.6	1.6	0.1µF to 47µF	Plastic	8	4	2,500	5,000		Yes	Yes	Yes	Yes
			3.2	2.5	1.4	0.1µF to 1.0µF	Plastic	8	4	3,000	10,000		Yes	No	Yes	Yes
			3.2	2.5	1.6	4.7µF	Plastic	8	4	2,500	5,000		Yes	No	Yes	Yes
		CM43 (1812)	3.2	2.5	2.0	0.22µF to 10µF	Plastic	8	4	2,000	5,000	Yes	No	Yes	Yes	
			3.2	2.5	2.5	0.47µF to 100µF	Plastic	8	4	1,000	—	Yes	No	Yes	Yes	
4.5	3.2		2.0	1.0µF	Plastic	12	8	1,000	—	Yes	No	Yes	Yes			
Tantalum Capacitors TAJ Series		A case	3.2	1.6	1.6	0.1µF to 100µF	Plastic	8	4	2,000	—	—	Yes	Yes	Yes	Yes
		B case	3.5	2.8	1.9	0.15µF to 220µF	Plastic	8	4	2,000	—	—	Yes	Yes	Yes	Yes
		C case	6.0	3.2	2.6	0.47µF to 680µF	Plastic	12	8	500	—	—	Yes	Yes	Yes	Yes
		D case	7.3	4.3	2.9	1.5µF to 1500µF	Plastic	12	8	500	—	—	Yes	Yes	Yes	Yes
		E case	7.3	4.3	4.1	10µF to 1500µF	Plastic	12	8	400	—	—	Yes	Yes	Yes	Yes
		V case	7.3	6.1	3.45	10µF to 2200µF	Plastic	12	8	400	—	—	Yes	Yes	Yes	Yes
		F case	6.0	3.2	2.0 max.	68µF to 470µF	Plastic	12	8	1,000	—	—	Yes	Yes	Yes	Yes
		K case	3.2	1.6	1.0 max.	4.7µF to 33µF	Plastic	8	4	3,000	—	—	Yes	Yes	Yes	Yes
		P case	2.05	1.35	1.5 max.	0.68µF to 47µF	Plastic	8	4	2,500	—	—	Yes	Yes	Yes	Yes
		R case	2.05	1.3	1.2 max.	0.1µF to 22µF	Plastic	8	4	2,500	—	—	Yes	Yes	Yes	Yes
		S case	3.2	1.6	1.2 max.	0.1µF to 47µF	Plastic	8	4	2,500	—	—	Yes	Yes	Yes	Yes
		T case	3.5	2.8	1.2 max.	0.33µF to 150µF	Plastic	8	4	2,500	—	—	Yes	Yes	Yes	Yes
		W case	6.0	3.2	1.5 max.	1µF to 330µF	Plastic	12	8	1,000	—	—	Yes	Yes	Yes	Yes
		X case	7.3	4.3	1.5 max.	10µF to 330µF	Plastic	12	8	1,000	—	—	Yes	Yes	Yes	Yes
Y case	7.3	4.3	2.0 max.	3.3µF to 1000µF	Plastic	12	8	1,000	—	—	Yes	Yes	Yes	Yes		
Niobium Oxide Capacitors NOJ Series		A case	3.2	1.6	1.6	4.7µF to 47µF	Plastic	8	4	2,000	—	—	Yes	Yes	Yes	Yes
		B case	3.5	2.8	1.9	10µF to 100µF	Plastic	8	4	2,000	—	—	Yes	Yes	Yes	Yes
		C case	6.0	3.2	2.6	22µF to 330µF	Plastic	12	8	500	—	—	Yes	Yes	Yes	Yes
		D case	7.3	4.3	2.9	100µF to 470µF	Plastic	12	8	500	—	—	Yes	Yes	Yes	Yes
		E case	7.3	4.3	4.1	220µF to 680µF	Plastic	12	8	400	—	—	Yes	Yes	Yes	Yes
		V case	7.3	6.1	3.45	470µF to 1000µF	Plastic	12	8	400	—	—	Yes	Yes	Yes	Yes
		F case	6.0	3.2	2.0 max.	100µF to 220µF	Plastic	12	8	1,000	—	—	Yes	Yes	Yes	Yes
		P case	2.05	1.35	1.5 max.	2.2µF to 22µF	Plastic	8	4	2,500	—	—	Yes	Yes	Yes	Yes
		S case	3.2	1.6	1.2 max.	4.7µF to 22µF	Plastic	8	4	2,500	—	—	Yes	Yes	Yes	Yes
		T case	3.5	2.8	1.2 max.	4.7µF to 47µF	Plastic	8	4	2,500	—	—	Yes	Yes	Yes	Yes
		W case	6.0	3.2	1.5 max.	33µF to 100µF	Plastic	12	8	1,000	—	—	Yes	Yes	Yes	Yes
		X case	7.3	4.3	1.5 max.	68µF to 220µF	Plastic	12	8	1,000	—	—	Yes	Yes	Yes	Yes
		Y case	7.3	4.3	2.0 max.	68µF to 470µF	Plastic	12	8	1,000	—	—	Yes	Yes	Yes	Yes
		EMI Filters		KNF21	2.0	1.25	0.8	25 to 400MHz	Plastic	8	4	3,000	—	—	Yes	No
KNA16	1.6			0.8	0.5	100 to 390MHz	Paper	8	4	7,000	—	—	Yes	No	Yes	Yes
KNA21	2.0			1.25	0.7	150 to 400MHz	Plastic	8	4	3,000	—	—	Yes	No	Yes	Yes
KNA32	3.2			1.6	0.75	50 to 200MHz	Plastic	8	4	3,000	—	—	Yes	No	Yes	Yes
KVA16	1.6			0.8	0.5	200 to 300MHz	Paper	8	4	5,000	—	—	Yes	No	Yes	Yes
KVA21	2.0			1.25	0.7	200 to 300MHz	Plastic	8	4	3,000	—	—	Yes	No	Yes	Yes
KNH10	1.0			0.5	0.35	100,000 to 470,000pF	Paper	8	2	20,000	—	—	Yes	No	Yes	Yes
KNH16	1.6			0.8	0.6	100,000 to 1,000,000pF	Paper	8	4	5,000	—	—	Yes	No	Yes	Yes
KNH21	2.0			1.25	0.85	220 to 1,000,000pF	Plastic	8	4	3,000	—	—	Yes	No	Yes	Yes
KNH21C106DA	2.0			1.25	1.0	10,000,000pF	Plastic	8	4	3,000	—	—	Yes	No	Yes	Yes
Transient Voltage Suppressors				VC0201	0.6	0.3	0.33 max.	to 7.0V	Paper	8	4	10,000	—	—	Yes	No
		VC0402, VC04LC/ AG	1.0	0.5	0.6 max.	to 18V	Paper	8	4	10,000	—	—	Yes	Yes	Yes	Yes
		VCH4	1.0	0.5	0.35 max.	to 15V	Paper	8	4	10,000	—	—	Yes	Yes	Yes	Yes
		USB0005/ 6	1.0	0.5	0.6 max.	to 18V	Paper	8	4	10,000	—	—	Yes	Yes	Yes	Yes
		MG042	1.0	1.37	0.66 max.	to 18V	Paper	8	4	4,000	—	—	Yes	Yes	Yes	Yes
		USB0002	1.0	1.37	0.66 max.	to 18V	Plastic	8	4	4,000	—	—	Yes	Yes	Yes	Yes
		MG052	1.25	2.01	1.02 max.	to 18V	Paper	8	4	4,000	—	—	Yes	Yes	Yes	Yes
		VC0603, VC06LC/ AG	1.6	0.8	0.9 max.	to 30V	Paper	8	4	4,000	—	—	Yes	Yes	Yes	Yes
		USB0001	1.6	0.8	0.9 max.	to 18V	Paper	8	4	4,000	—	—	Yes	Yes	Yes	Yes
		MG064	1.6	3.2	1.22 max.	to 18V	Plastic	8	4	4,000	—	—	Yes	Yes	Yes	Yes
		USB0004	1.6	3.2	1.22 max.	to 18V	Plastic	8	4	4,000	—	—	Yes	Yes	Yes	Yes
		VC0805, VC08LC	2.01	1.25	1.02 max.	to 30V	Paper	8	4	2,000	—	—	Yes	Yes	Yes	Yes
		VC1206, VC12LC	3.2	1.6	1.02 max.	to 65V	Plastic	8	4	2,000 to 4,000	—	—	Yes	Yes	Yes	Yes
		VJ20	3.2	1.6	1.7 max.	to 85V	Plastic	8	4	3,000	—	—	Yes	Yes	Yes	Yes
		VC1210	3.2	2.49	1.7 max.	to 85V	Plastic	8	4	2,000	—	—	Yes	Yes	Yes	Yes
		VJ13	3.2	2.5	1.7 max.	to 85V	Plastic	8	4	2,000	—	—	Yes	Yes	Yes	Yes
		VC1812	4.5	3.2	1.7 max.	to 56V	Plastic	8	4	1,000	—	—	Yes	Yes	Yes	Yes
		VJ14	4.5	3.2	2.0 max.	to 125V	Plastic	12	4	1,250	—	—	Yes	Yes	Yes	Yes
		VJ15	5.7	5.0	2.5 max.	to 85V	Plastic	12	4	1,000 to 1,250	—	—	Yes	Yes	Yes	Yes
		VJ32	8.2	5.0	2.5 max.	to 385V	Plastic	16	4	—	1,000	—	—	Yes	Yes	Yes

* RoHS Compliant Products: Products which do not contain lead, cadmium, mercury, hexavalent chromium, PBB and PBDE, based on EU DIRECTIVE 2002/95/EC. Substances exempted by the DIRECTIVE and impurities observed in natural environment are excepted.