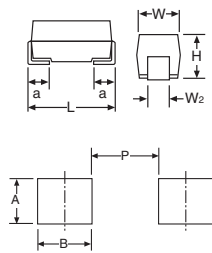
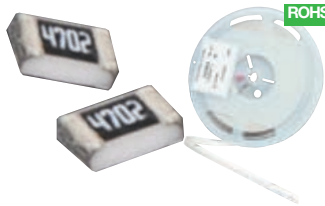


▼ SMD Capacitors

SMD Tantalum Chip Capacitors



- Suitable for reflow or hand soldering
- Temperature range -55° to +125°C
- Tolerance: ±20%
- Available in small packs or OEM reel quantities.

**Component Markings**

Voltage	10V	16V	20V	25V	35V
Marking	A	C	D	E	V

**A Package**

Example: 35V, 0.47µF

**B Package**

Example: 16V, 3.3µF

**Dimensions**

Case	L	W	H	W2	a
A (EIA 3216)	3.2	1.6	1.6	1.2	0.8
B (EIA 3528)	3.5	2.8	1.9	2.2	0.8

**Pad Layout**

Package	A	B	P
(EIA 3216)	1.5	2.9	1.35
(EIA 3528)	2.7	3.0	1.35

Service & Prototyping Packs

OEM Reels

Price Per Pk	Value	Volts DC	Case	Pack Of	RRP	10+	Reel Qty
R 9015	0.47µF	35V	A	10	3.85	3.45	R 9017 2000
R 9042A	1µF	35V	A	10	3.85	3.45	R 9044A 2000
R 9075	2.2µF	20V	A	10	3.85	3.45	R 9077A 2000
R 9084A	2.2µF	25V	B	10	4.25	3.85	R 9086A 2000
R 9129A	4.7µF	16V	A	10	4.25	3.85	R 9131A 2000
R 9138A	4.7µF	20V	B	10	5.85	5.30	R 9140A 2000
R 9180A	10µF	10V	A	10	4.25	3.85	R 9182A 2000
R 9189A	10µF	16V	B	10	6.00	5.40	R 9191A 2000
R 9237A	22µF	16V	B	10	6.50	5.85	R 9239A 2000

SMD Bipolar Capacitors



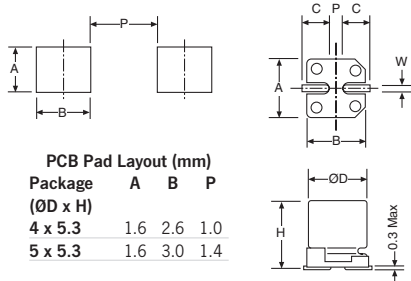
ROHS

- Industry standard packages
- Temperature range -40° to +85°C
- Tolerance ±20%
- Available in small packs or OEM reel quantities.

**Dimensions (mm)**

Case	Package (ØD x H)	A	B	C	W	P
A	4 x 5.3	4.3	4.3	2.0	0.5-0.8	1.0
B	5 x 5.3	5.3	5.3	2.3	0.5-0.8	1.5

**Component Markings**



Service & Prototyping Packs

OEM Reels

Price Per Pk	Value	Volts DC	Case	ØD x H mm	RRP	10+	Reel Qty
R 9600	1µF	50V	A	10	3.15	3.00	R 9602 2000
R 9603	2.2µF	35V	A	10	3.15	3.00	R 9605 2000
R 9606	3.3µF	25V	A	10	3.15	3.00	R 9608 2000
R 9612	4.7µF	16V	A	10	3.15	3.00	R 9614 2000
R 9624	10µF	16V	B	10	4.95	4.65	R 9626 1000

▼ Varistors

Metal Oxide Varistors (MOV)

Varistors are used for protection against voltage spikes or transients, such as those produced by lightning or back EMF from large motors, preventing “spike damage” to sensitive devices such as microprocessors or digital circuits. **All quantities are supplied loose.**



ROHS

	Disc Size Approx.	Pitch (mm)	Operating Voltage	Clamping Voltage	Peak Current	Max. Energy
R 4321	7mm	5mm	25V AC	77V	250A	2.1J
R 4323	14mm	7.5mm	25V AC	77V	750A	8.6J
R 4328	14mm	7.5mm	30V AC	93V	1000A	10J
R 4338	14mm	7.5mm	40V AC	135V	1000A	14J
R 4368	14mm	7.5mm	130V AC	340V	4500A	57J
R 4407	10mm	7.5mm	275V AC	710V	2500A	65J
R 4408	14mm	7.5mm	275V AC	710V	4500A	115J
R 4409	20mm	10mm	275V AC	710V	6500A	190J

Price Each	RRP	10+	25+
ALL	1.75	1.55	1.40

SMD 1206 Varistors



ROHS

Varistors are used for protection against voltage spikes or transients such as those produced by lightning or back EMF from large motors.

**Pad Layout**

Type	A	B	P
1206	1.6	1.5	2.0

	Operating Voltage (RMS)	Clamping Voltage	Peak Current	Max. Energy	Typical Capacitance
R 4438	14V ac	38V	100A	0.3J	900pf
R 4447	25V ac	65V	100A	0.6J	440pf
R 4450	30V ac	77V	100A	0.7J	400pf
R 4453	35V ac	90V	100A	0.8J	310pf

Service & Prototyping Packs

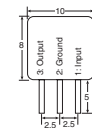
OEM Reels

Price Per Pack	Pack Of	RRP	10+	Reel Qty
R 4438 14V ac	10	6.50	5.85	R 4440 3000
R 4447 25V ac	10	6.50	5.85	R 4449 3000
R 4450 30V ac	10	6.50	5.85	R 4452 3000
R 4453 35V ac	10	6.50	5.85	R 4455 3000

▼ Crystals & Resonators

3 Pin Resonator

High quality 3 pin ceramic resonators with internal load capacitor, as used in modern micro-processor circuits. **All quantities supplied loose.**



ROHS

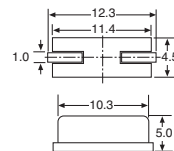
V 1613	3.579545MHz
V 1616	4.0MHz

Price Each	RRP	10+	40+
BOTH	2.50	2.25	2.00

HC49SM SMD Crystals



ROHS



Pk 10	OEM Reel	MHz
V 2213	V 2214	3.276800
V 2215	V 2216	3.579545
V 2219	V 2220	4.000000
V 2229	V 2230	4.433619
V 2231	V 2232	4.915200
V 2233	V 2234	5.000000
V 2239	V 2240	6.000000
V 2249	V 2250A	8.000000
V 2259	V 2260A	10.000000
V 2265	V 2266	11.059200
V 2267	V 2268A	12.000000
V 2289	V 2290A	16.000000

SPECIFICATIONS

Frequency tolerance: ±30ppm (@25°C)  
 Operating temperature: -20°C to 70°C  
 Shunt capacitance: 7pF max  
 Load capacitance: 10 to 32pF pr series resonant  
 Insulation resistance: 500MΩ @ 100V DC  
 Drive level: 1mW max

Service & Prototyping Packs

OEM Reels

Price Per Pack	Pack Of	RRP	10+	Reel Qty
ALL	10	12.95	11.75	1000