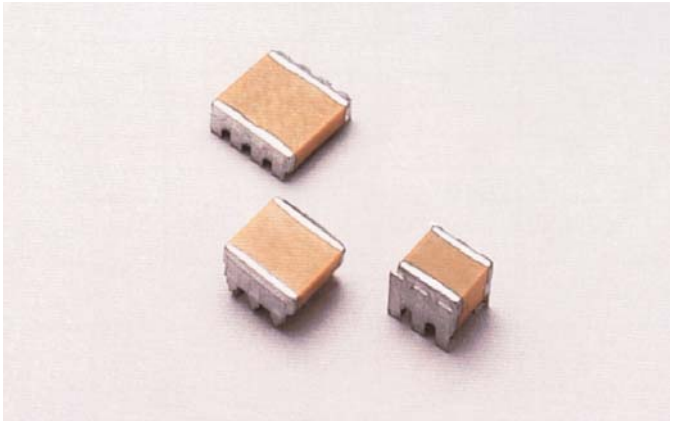
SMPS Capacitors (RH Style)

RH - Surface Mount ‘J’ Lead Range



0.047 µF to 47.0 µF
25V to 500 VDC
-55ºC to +125ºC

Low ESR/ESL
X7R Dielectric

This range of uncoated MLC capacitors are processed for input and output filter capacitors in high frequency DC-DC convertor applications above 10 Watts e.g. telecomms and instrumentation, where high volume and low cost is required. These products are available in surface mount ‘J’ leaded versions and can be supplied in bulk and tape/reel packaging.

ELECTRICAL SPECIFICATIONS

Temperature Coefficient CECC 30 000, (4.24.1)
X7R: C Temperature Characteristic - ± 15%, -55ºC to +125ºC

Capacitance Test
Measured at 1 VRMS max at 1KHz

Dissipation Factor 25°C
2.5% max at 1KHz, 1 VRMS max

Insulation Resistance 25°C
100K megohms or 1000 megohms-µF, whichever is less

Dielectric Withstanding Voltage 25°C (Flash Test)
250% rated voltage for 5 seconds with 50 mA max charging current. (500 Volt units @ 150% rated voltage)

Life Test (1000 hrs) CECC 30 000 (4.23)
200% rated voltage at +125ºC.
(500 Volt units @ 120% rated voltage)

Thermal Shock IEC 68.2.14
-55ºC to +125ºC, 5 cycles

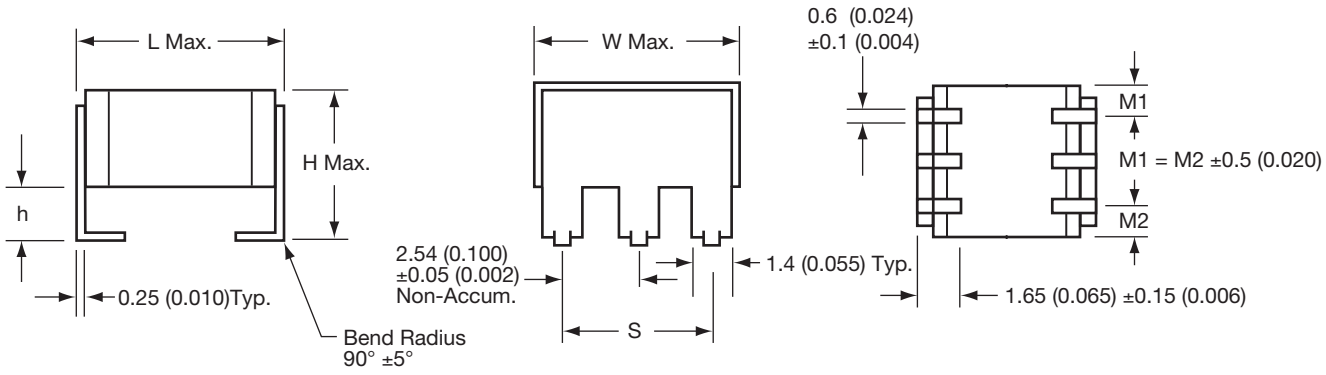
Resistance to Solder Heat IEC 68.2.20

Typical ESR (mΩ) 3 µF, 100V X7R	
ESR @ 100KHz	17
ESR @ 500KHz	12
ESR @ 1MHz	14

DIMENSIONS millimeters (inches)

Style	L max	W max	H max	S ± 0.1 (±0.004)	h	No. of leads per side
RH21	7.62 (0.300)	5.40 (0.213)	4.60 (0.181)	2.50 (0.098)	1.50 ±0.30 (0.059 ±0.012)	2
RH22	7.62 (0.300)	5.40 (0.213)	7.50 (0.295)	2.50 (0.098)	1.50 ±0.30 (0.059 ±0.012)	2
RH31	7.62 (0.300)	7.00 (0.270)	5.08 (0.200)	5.08 (0.200)	1.78 ±0.25 (0.070 ±0.010)	3
RH32	7.62 (0.300)	7.00 (0.270)	8.13 (0.320)	5.08 (0.200)	1.78 ±0.25 (0.070 ±0.010)	3
RH41	9.20 (0.362)	8.70 (0.342)	4.90 (0.192)	5.08 (0.200)	1.60 ±0.10 (0.062 ±0.004)	3
RH42	9.20 (0.362)	8.70 (0.342)	8.20 (0.323)	5.08 (0.200)	1.60 ±0.10 (0.062 ±0.004)	3
RH51	10.7 (0.421)	10.7 (0.421)	4.90 (0.192)	7.62 (0.300)	1.60 ±0.10 (0.062 ±0.004)	4
RH52	10.7 (0.421)	10.7 (0.421)	8.20 (0.323)	7.62 (0.300)	1.60 ±0.10 (0.062 ±0.004)	4
RH61	14.9 (0.586)	13.6 (0.535)	4.90 (0.192)	10.2 (0.400)	1.60 ±0.10 (0.062 ±0.004)	5
RH62	14.9 (0.586)	13.6 (0.535)	8.20 (0.323)	10.2 (0.400)	1.60 ±0.10 (0.062 ±0.004)	5

DIMENSIONS millimeters (inches)



SMPS Capacitors (RH Style)

RH - Surface Mount 'J' Lead Range

X7R STABLE DIELECTRIC

	RH21/RH22 Style					RH31/RH32 Style				RH41/RH42 Style				RH51/RH52 Style				RH61/RH62 Style			
	Voltage DC																				
Cap µF	25	50	100	200	500	50	100	200	500	50	100	200	500	50	100	200	500	50	100	200	500
0.047																					
0.056																					
0.068									RH31												
0.082																					
0.1																					
0.12																					
0.15									RH32				RH41								
0.18																					
0.22																					
0.27								RH31													
0.33													RH42				RH51				
0.39												RH41									
0.47								RH32													
0.56																	RH52				RH61
0.68																RH51					
0.78																					
0.82							RH31					RH42									
1																					
1.2																					RH62
1.5						RH31					RH41					RH52				RH61	
1.8																					
2.2							RH32			RH41											
3																					
3.3			RH21			RH32					RH42										RH62
3.9																					
4.7										RH42					RH51						
6.8																				RH61	
8.2		RH21	RH22											RH51				RH61			
10																					
12																				RH62	
15	RH21	RH22																RH62			
18															RH52						
22														RH52							
33	RH22																				
47																					

For availability of further parts in the RH21/RH22 Series, contact manufacturing.

PACKAGING

Style	Qty/Reel 13"	Max. Qty/Waffle Pack
RH21	800	270
RH22	500	270
RH31	800	108
RH32	500	108
RH41	800	108
RH42	see note	100
RH51	750	88
RH52	see note	88
RH61	500	42
RH62	see note	42

Note: T&R is not yet available. Contact manufacturing for further information as this will be available in the future.

HOW TO ORDER

RH	31	5	C	225	M	A	3	0	A	3
Style Code (see table above)	**Size Code**	**Voltage Code** 3 = 25V 5 = 50V 1 = 100V 2 = 200V 7 = 500V	**Dielectric Code** C = X7R	**Capacitance Code** (2 significant digits + no. of zeros) eg. 105 = 1 µF 104 = 0.1 µF	**Capacitance Tolerance** K = ±10% M = ±20%	**Specification Code** A = Non customized	**Package Code** 3 = Waffle Pack A = Tape & Reel	**Lead Dia. Code** 0 = Standard R = RoHS Compliant	**Lead Space Code** A = Standard	**Lead Style Code** 3 = 'J' Lead