

FEATURES

- CYLINDRICAL LEADLESS TYPE FOR SURFACE MOUNT
- HIGH VOLTAGE (160VDC AND 450VDC)
- 10mm x 14mm ~ 18mm x 22mm Size
- 4 TERMINALS (16 & 18mm Dia.) FOR HIGH VIBRATION STABILITY
- LONG LIFE (5000 HOURS AT +105°C)
- COMPATIBLE WITH REFLOW SOLDERING



CHARACTERISTICS

Rated Voltage Range		160 ~ 450 Vdc					
Rated Capacitance Range		2.2 ~ 100μF					
Operating Temperature Range		- 40°C ~ + 105°C					
Capacitance Tolerance		± 20% (M)					
Max. Leakage Current After 2 Minutes		0.06CV + 10μF					
Max. Tanδ at 120Hz & 20°C		160Vdc	200Vdc	250Vdc	350Vdc	400Vdc	450Vdc
		0.15			0.20	0.24	
Low Temperature Stability (Impedance Ratio @ 120Hz)	Z-25°C/+20°C	2	2	3	5	6	6
High Temperature Load Life 5000 Hours at +105°C Rated WVDC	Capacitance Change	Within ± 20% of initial measured value					
	Tan δ	Less than 200% of specified value					
	Leakage Current	Less than the specified maximum value					
Resistance to Soldering Heat Within the Recommended Reflow Conditions	Capacitance Change	Within ± 10% of initial measured value					
	Tan δ	Less than the specified maximum value					
	Leakage Current	Less than the specified maximum value					

STANDARD PRODUCT AND CASE SIZE TABLE DØxL (mm)

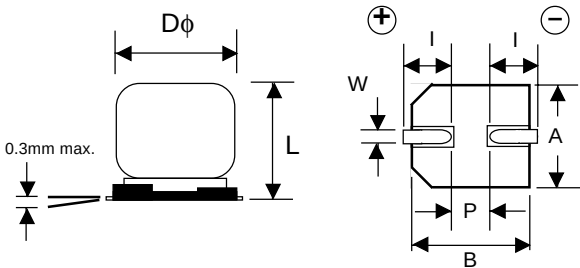
Cap (μF)	Code	Working Voltage (Vdc)					
		160	200	250	350	400	450
2.2	2R2						10 x 14
3.3	3R3				10 x 14	10 x 14	10 x 18
4.7	4R7				10 x 18	10 x 18	12.5 x 17
10	100	10 x 14	10 x 18	10 x 18	16 x 17	16 x 17	18 x 17
22	220		12.5 x 17	16 x 17	18 x 17	16 x 22	18 x 22
33	330	12.5 x 17	16 x 17	18 x 17	16 x 22	18 x 22	
47	470	16 x 17	18 x 17	16 x 22	18 x 22		
68	680	18 x 17	16 x 22	18 x 22			
		18 x 22					
100	101	18 x 22	18 x 22				

MAXIMUM RIPPLE CURRENT
(mA rms AT 120Hz AND 105°C)

Cap (μF)	Working Voltage (Vdc)					
	160	200	250	350	400	450
2.2						29
3.3				38	40	41
4.7				50	50	49
10	70	80	88	270	250	310
22		470	560	350	410	560
33	470	600	560	480	600	
47	600	600	710	670		
68	750	750	990			
100	1060	1060				

MAXIMUM ESR
(Ω AT 120Hz AND 20°C)

Cap (μF)	Working Voltage (Vdc)					
	160	200	250	350	400	450
2.2						181
3.3				101	121	121
4.7				70.7	84.8	84.8
10	24.9	24.9	24.9	33.2	39.9	39.9
22		11.3	11.3	15.1	18.1	18.1
33	7.55	7.55	7.55	10.1	12.1	
47	5.30	5.30	5.30	7.07		
68	3.66	3.66	3.66			
100	2.49	2.49				



SEE PAGE 38
For Case Size Data
SEE PAGE 39
For Taping/Packaging Data

