

FEATURES

- CYLINDRICAL LEADLESS TYPE FOR SURFACE MOUNTING
- CAPACITANCE VALUES UP TO 680 μ F
- LOW ESR & HIGH RIPPLE CURRENT AT 100K Hz
- 8x7mm ~ 10x10.5 CASE SIZE
- COMPATIBLE WITH REFLOW SOLDERING



CHARACTERISTICS

Rated Voltage Range	6.3 ~ 25 Vdc					
Rated Capacitance Range	22 ~ 680 μ F					
Operating Temp. Range	-55 ~ +105°C					
Capacitance Tolerance	\pm 20%(M)					
Max. Leakage Current After 2 Minutes @ 20°C	Less than 0.2CV					
Tan δ @ 120Hz/20°C	\leq 15%					
Working and Surge Voltage Ratings	W.V. (Vdc)	6.3	10	16	20	25
	S.V. (Vdc)	7.2	11.5	18.4	23	28.7
Load LifeTest @ 105°C 1,000 Hours	Capacitance Change	Within \pm 20% of initial measured value				
	Tan δ	Less than specified max. value				
	Leakage Current	Less than specified max. value				

LOW ESR COMPONENT
SOLID POLYMER ELECTROLYTE
For Performance Data
see www.LowESR.com

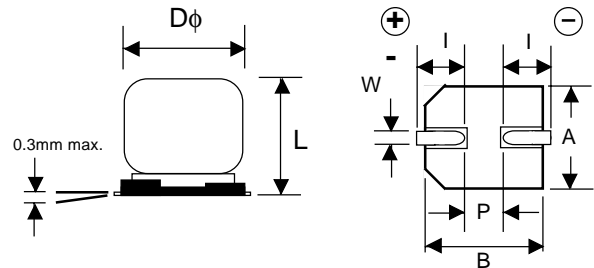
SURFACE MOUNT

STANDARD PRODUCTS AND CASE SIZES (mm)

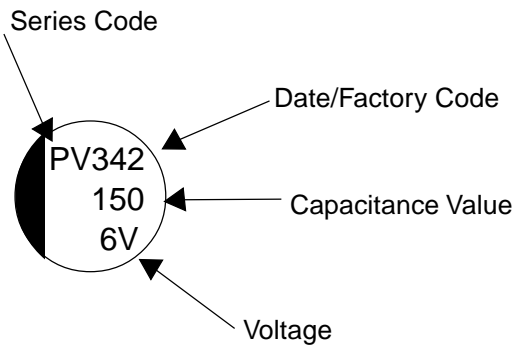
Cap (μ F)	Code	Working Voltage (Vdc)				
		6.3	10	16	20	25
22	220	-	-	-	-	8x7
33	330	-	-	-	-	10x8
47	470	-	-	-	8x7	-
82	820	-	-	8x7	10x8	10x10.5
100	101	-	-	8x7	-	-
120	121	-	8x7	-	-	-
150	151	8x7	8x7	10x8	10x10.5	-
180	181	-	-	10x8	-	-
220	221	8x7	-	10x10.5	-	-
270	271	-	10x8	10x10.5	-	-
330	331	10x8	10x10.5	10x10.5	-	-
390	391	10x8	-	-	-	-
470	471	10x10.5	10x10.5	-	-	-
560	561	10x10.5	-	-	-	-
680	681	10x10.5	-	-	-	-

CASE DIMENSIONS (mm)

D ϕ \pm 0.5	L max.	A \pm 0.2	W \pm 0.2	I	P
8.0	7.0	8.3	0.9	3.4	3.1
10	8.0	10.3	0.9	3.5	4.6
10	10.5	10.3	0.9	3.5	4.6



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



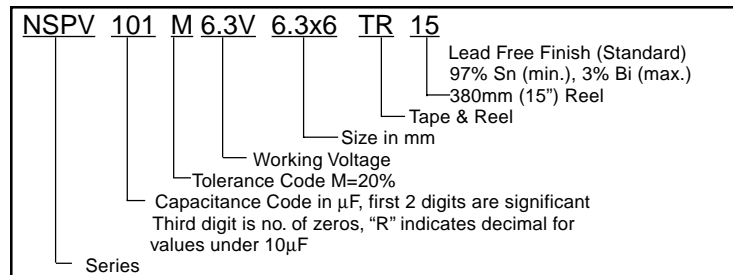
RIPPLE CURRENT RATING @ 100KHz/

Cap (μF)	Code	Working Voltage (Vdc)				
		6.3	10	16	20	25
22	220	-	-	-	-	1600mA
33	330	-	-	-	-	2200mA
47	470	-	-	-	2000mA	-
82	820	-	-	2500mA	2500mA	3300mA
100	101	-	-	2500mA	-	-
120	121	-	2800mA	-	-	-
150	151	3050mA	2800mA	3430mA	3700mA	
180	181	-	-	3430mA	-	-
220	221	3050mA	-	4100mA	-	-
270	271	-	3770mA	4100mA	-	-
330	331	4130mA	4500mA	4100mA	-	-
390	391	4130mA	-	-	-	-
470	471	5100mA	4500mA	-	-	-
560	561	5100mA	-	-	-	-
680	681	5100mA	-	-	-	-

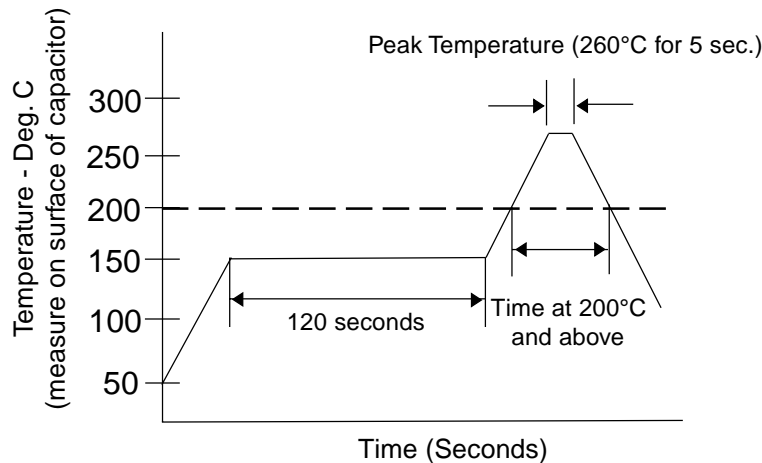
ESR @100KHz/20°C

Cap (μF)	Code	Working Voltage (Vdc)				
		6.3	10	16	20	25
22	220	-	-	-	-	50mΩ
33	330	-	-	-	-	39mΩ
47	470	-	-	-	50mΩ	-
82	820	-	-	39mΩ	39mΩ	30mΩ
100	101	-	-	39mΩ	-	-
120	121	-	35mΩ	-	-	-
150	151	35mΩ	35mΩ	29mΩ	26mΩ	
180	181	-	-	29mΩ	-	-
220	221	32mΩ	-	27mΩ	-	-
270	271	-	24mΩ	27mΩ	-	-
330	331	22mΩ	22mΩ	22mΩ	-	-
390	391	22mΩ	-	-	-	-
470	471	20mΩ	17mΩ	-	-	-
560	561	20mΩ	-	-	-	-
680	681	15mΩ	-	-	-	-

SURFACE MOUNT



RECOMMENDED REFLOW SOLDERING



Maximum Time Above +200°C	Peak Soldering Temperature
50 Seconds	260°C
60 Seconds	250°C
70 Seconds	240°C