

Features

- CYLINDRICAL LEADLESS TYPE FOR SURFACE MOUNTING
- CAPACITANCE VALUES UP TO 680 μ F
- LOW ESR & HIGH RIPPLE CURRENT AT 100KHz
- 6.3x6mm ~ 10x8mm CASE SIZES
- COMPATIBLE WITH REFLOW SOLDERING



Characteristics

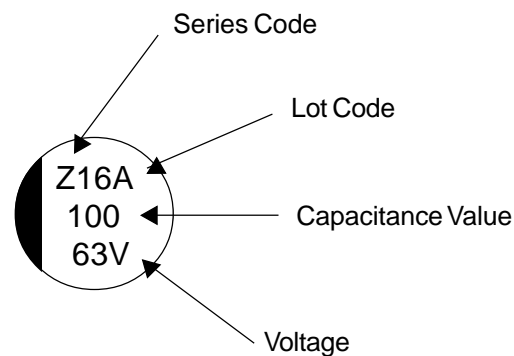
Rated Voltage Range	4 ~ 25 Vdc				
Rated Capacitance Range	15 ~ 680 μ F				
Operating Temp. Range	-55 ~ +105°C				
Capacitance Tolerance	\pm 20%(M)				
Max. Leakage Current After 2 Minutes @ 20°C	Less than 0.2CV				
Working and Surge Voltage Ratings	W.V. (Vdc)	6.3	10	16	25
	S.V. (Vdc)	8.0	13	20	22
Tan δ @ 120Hz/20°C	All Case Sizes	0.12			
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			

SURFACE MOUNT

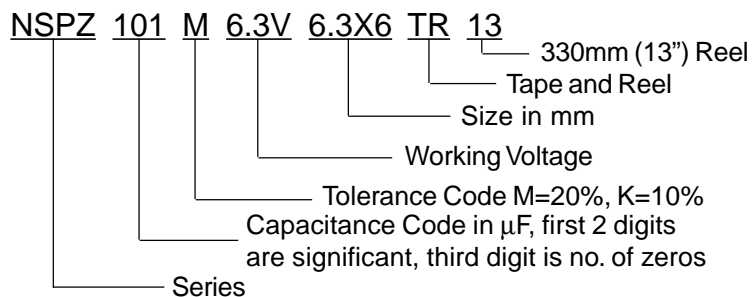
Standard Products and Case Sizes (mm)

Cap (μ F)	Code	Working Voltage (Vdc)					
		4.0	6.3	10	16	20	25
15	150	-	-	-	-	-	6.3x6
22	220	-	-	-	-	6.3x6	-
27	270	-	-	-	-	6.3x6	-
39	390	-	-	-	6.3x6	-	8x7
56	560	-	-	6.3x6	-	-	-
82	820	-	6.3x6	-	8x7	-	10x8
100	101	6.3x6	6.3x6	-	-	-	-
120	121	-	-	8x7	-	-	-
150	151	6.3x6	8x7	8x7	10x8	-	-
180	181	-	-	-	10x8	-	-
220	221	8x7	8x7	-	-	-	-
270	271	-	-	10x8	-	-	-
330	331	8x7	10x8	10x8	-	-	-
470	471	10x8	10x8	-	-	-	-
680	681	10x8	-	-	-	-	-

Part Marking

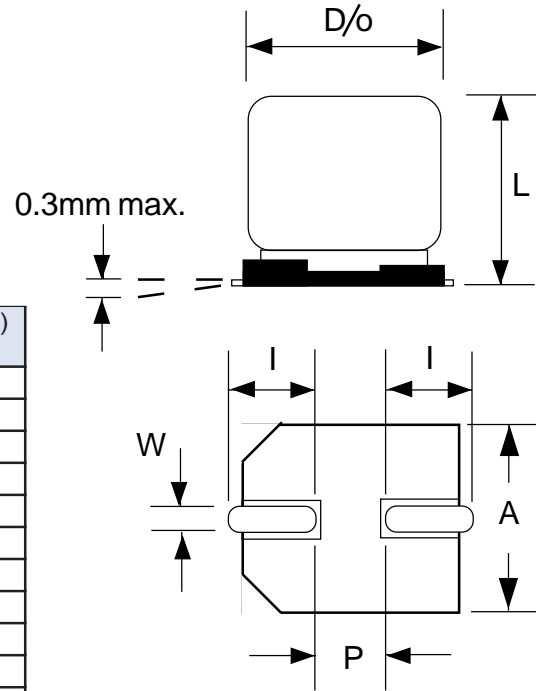


PART NUMBERING SYSTEM



Case Dimensions (mm)

Dφ ±0.5	L max.	A ±0.2	W ±0.2	I	P
6.3	6	6.6	0.65	2.65	1.9
8.0	7.0	8.3	0.9	2.95	3.1
10	8	10.3	0.9	3.25	4.5

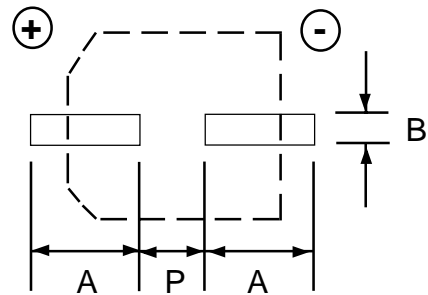


Standard Values and Specifications

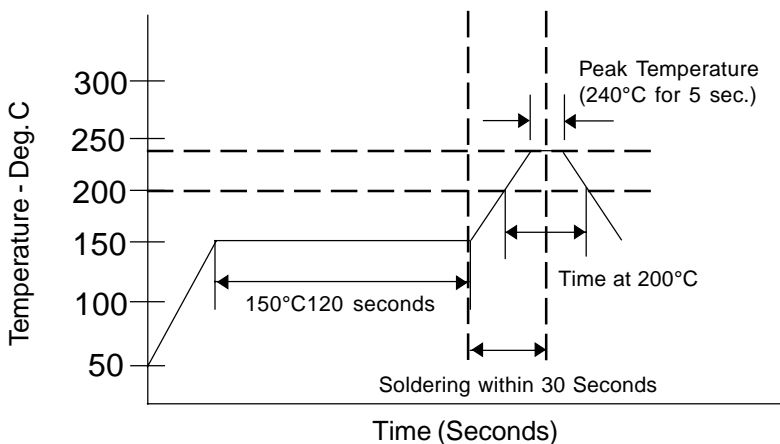
Voltage (Vdc)	Cap. (μF)	ESR (ohms)		Ripple Current (mA)	
		20°C/100Khz	105°C/100Khz	20°C/100Khz	105°C/100Khz
4	100	40	1,550		
	150	40	1,550		
	220	35	2,000		
	330	35	2,000		
	470	25	2,500		
	680	25	2,500		
6.3	82	40	1,500		
	100	40	1,550		
	150	35	1,900		
	220	35	1,900		
	330	25	2,400		
	470	25	2,400		
10	56	50	1,450		
	120	40	1,800		
	150	40	1,800		
	270	30	2,300		
	330	30	2,300		
16	39	60	1,400		
	82	45	1,600		
	150	35	2,000		
	180	35	2,000		
20	22	65	1,350		
	27	65	1,350		
25	15	75	1,300		
	39	50	1,400		
	82	40	1,600		

Land Pattern Dim. (mm)

Case Dia.	A	B	P
6.3	3.5	1.6	1.9
8	4.2	2.2	3.1
10	4.4	2.2	4.5



RECOMMENDED REFLOW SOLDERING PROFILE



Maximum Time Above +200°C	Peak Soldering Temperature
30 Seconds	240°C
40 Seconds	230°C
50 Seconds	220°C