

NDRZ Series

Low ESR Cylindrical Type Supercapacitor



FEATURES

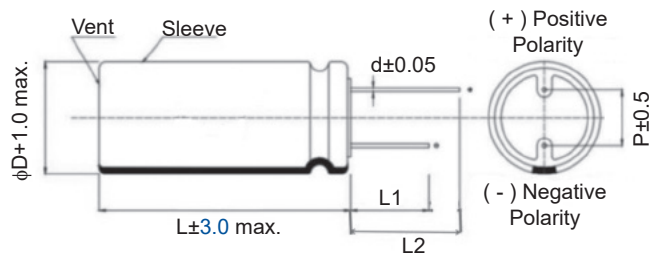
- STANDARD CYLINDRICAL TYPE CONSTRUCTION
- HIGH TEMPERATURE (+70°C FOR DISCHARGE)
- GREEN MEETING RoHS REQUIREMENTS
- LONG CHARGE-DISCHARGE CYCLE LIFE
- LOW LEAKAGE CURRENT, SUITABLE FOR MAINTAIN RTC

NDRZ CHARACTERISTICS

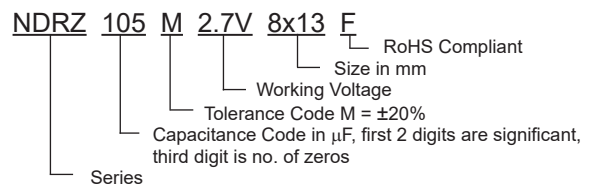
Rated Voltage Rating	2.7VDC
Rated Capacitance Range	0.5 ~ 20F (500,000 μ F ~ 20,000,000 μ F)
Operating Temp. Range	-40°C ~ +65°C (2.7V), +70°C (2.5V)
Capacitance Tolerance	\pm 20% (M)
Load Life @ +65°C 1,000 hours	Δ C: Less than or equal to 30% of the initial value
	ESR: Less than or equal to 4 times the initial value
	Appearance: No leakage or mechanical damage

CASE DIMENSIONS (mm)

NIC P/N	DIMENSIONS (mm)					
	D \pm 1.0	L	P \pm 0.5	d \pm 0.05	L1 \pm 2.0	L2 \pm 2.0
NDRZ504M2.7V6.3X12.5F	6.3	12.5 \pm 1.5	2.5	0.5	20.0	25.0
NDRZ105M2.7V6.3X12.5F	6.3	12.5 \pm 1.5	2.5	0.5	20.0	25.0
NDRZ105M2.7V8X13F	8.0	13.0 \pm 1.5	3.5	0.6	20.0	26.0
NDRZ205M2.7V8X13F	8.0	13.0 \pm 1.5	3.5	0.6	20.0	26.0
NDRZ335M2.7V8X20F	8.0	20.0 \pm 1.5	3.5	0.6	20.0	26.0
NDRZ405M2.7V8X16F	8.0	16.0 \pm 1.5	3.5	0.6	20.0	26.0
NDRZ505M2.7V8X24F	8.0	24.0 \pm 1.5	3.5	0.6	20.0	26.0
NDRZ505M2.7V10X20F	10	20.0 \pm 1.5	5.0	0.6	19.0	25.0
NDRZ605M2.7V10X20F	10	20.0 \pm 1.5	5.0	0.6	20.0	25.0
NDRZ705M2.7V10X20F	10	20.0 \pm 1.5	5.0	0.6	19.0	25.0
NDRZ106M2.7V10X25F	10	25.0 \pm 2.0	5.0	0.6	22.0	28.0
NDRZ156M2.7V12.5X25F	12.5	25.0 \pm 2.0	5.0	0.6	23.0	29.0
NDRZ206M2.7V16X25F	16	25.0 \pm 3.0	7.5	0.8	22.0	28.0



PART NUMBER SYSTEM





NDRZ ELECTRICAL SPECIFICATIONS

NIC P/N	Capacitance (F)	Voltage (VDC)	ESR 1KHz (mΩ @25°C) Max.	Peak Current (A @ 25°C<1s) Max.	LC after 72h (mA@ 25°C)	Stored Energy (mWh) Max.
NDRZ504M2.7V6.3X12.5F	0.5	2.7	280	0.59	0.013	0.51
NDRZ105M2.7V6.3X12.5F	1.0	2.7	240	1.12	0.008	1.01
NDRZ105M2.7V8X13F	1.0	2.7	200	1.12	0.008	1.01
NDRZ205M2.7V8X13F	2.0	2.7	160	2.04	0.012	2.03
NDRZ335M2.7V8X20F	3.3	2.7	80	3.52	0.021	3.34
NDRZ405M2.7V8X16F	4.0	2.7	120	3.64	0.015	4.05
NDRZ505M2.7V8X24F	5.0	2.7	100	4.50	0.020	5.06
NDRZ505M2.7V10X20F	5.0	2.7	100	4.50	0.020	5.06
NDRZ605M2.7V10X20F	6.0	2.7	55	6.09	0.036	6.08
NDRZ705M2.7V10X20F	7.0	2.7	60	6.65	0.030	7.09
NDRZ106M2.7V10X25F	10.0	2.7	50	9.00	0.050	10.13
NDRZ156M2.7V12.5X25F	15.0	2.7	45	12.08	0.065	15.19
NDRZ206M2.7V16X25F	20.0	2.7	30	16.87	0.070	20.25

PACKAGING QUANTITY

NIC P/N	Quantity per Plastic Tray
NDRZ504M2.7V6.3X12.5F	180
NDRZ105M2.7V6.3X12.5F	180
NDRZ105M2.7V8X13F	160
NDRZ205M2.7V8X13F	160
NDRZ335M2.7V8X20F	120
NDRZ405M2.7V8X16F	140
NDRZ505M2.7V8X24F	100
NDRZ505M2.7V10X20F	120
NDRZ605M2.7V10X20F	120
NDRZ705M2.7V10X20F	120
NDRZ106M2.7V10X25F	80
NDRZ156M2.7V12.5X25F	60
NDRZ206M2.7V16X25F	50



NDRZ ENVIRONMENTAL CHARACTERISTICS

ITEM	REQUIREMENT		TEST CONDITION
Endurance	ΔC	Less than or equal to 30% of the initial measured value	Applied voltage: 2.7V Temperature: +65°C ± 2°C Test Duration:1000 hours
	ESR	Less than or equal to 4 times the initial measured value	
	Appearance	No leakage or mechanical damage	
Cycle Life	ΔC	Less than or equal to 30% of the initial measured value	At 25°C, charge to the rated voltage with constant current, stand for 5s, discharge to 50% voltage with constant current, stand for 5s, cycle 500000
	ESR	Less than or equal to 4 times the initial measured value	
Humidity Characteristics	ΔC	Within 30% of the rated specification	Temperature: +40°C ± 2°C Relative humidity: 90~95%RH Test Duration: 240 hours
	ESR	Less than or equal to 4 times the initial measured value	
	Appearance	No leakage or mechanical damage	
Temperature Cycle	ΔC	Less than or equal to 10% of the initial measured value	Temperature cycle: -25°C ± 2°C →normal temperature →+70°C ± 2°C →normal temperature Number of Cycles: 5
	Appearance	No mechanical damage or leakage	
Low Temperature Storage Characteristics	ΔC	Within 10% of the rated specification	Applied Voltage: 0v Temperature: -40°C ± 2°C Test Duration:96 hours
	ESR	Less than or equal to 2 times the initial measured value	
	Appearance	No leakage or mechanical damage	
High Temperature Storage Characteristics	ΔC	Within 10% of the rated specification	Applied Voltage: 0v Temperature: +70°C ± 2°C Test Duration:96 hours
	ESR	Less than or equal to 2 times the initial measured value	
	Appearance	No leakage or mechanical damage	
Self-Discharge (Voltage Holding Characteristics)	The self-discharge cut off voltage is greater than or equal to 80% of the rated voltage.		Charging process: Normal temperature, no load, rated voltage charge 8 hours Placement process: Temperature less than or equal to 25 °C, relative humidity less than 60% RH, open 24 hours
Lead Strength	No damage to the outlet		DL/T1652-2016
Solderability	More than 3/4 of the terminal surface is covered by a tin layer		DL/T1652-2016

FLOW (WAVE) SOLDERING PROFILE

