

Aluminum Electrolytic Capacitors

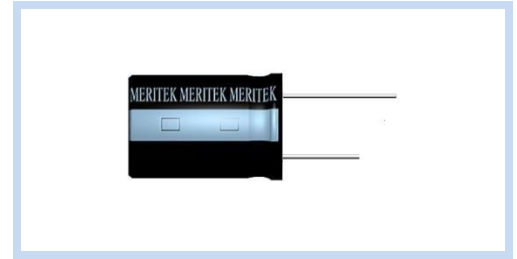
105°C 2000Hrs

NS Series

MERITEK

FEATURE

- Operating Temperature: -25°C ~ +105°C
- Load Life of 2000 Hours
- No Sparks With DC Overvoltage Series



SPECIFICATIONS

Item	Characteristic		
Operation Temperature	-25°C ~ + 105°C		
Rated Working Voltage	200 ~ 400VDC		
Capacitance Tolerance	±20% (M);		
Leakage Current at 20°C	$I \leq 0.06CV + 10 (\mu A)$ *Whichever is greater after 2 minutes		I: Leakage Current (μA) C: Capacitance (μF) V: Working Voltage (V)
Surge Voltage at 20°C	Rated Voltage (V)	200	400
	Surge Voltage (V)	250	450
Dissipation Factor-tan δ At 120Hz 20°C	Rated Voltage (V)	200	400
	tan δ max	0.15	0.24
Low Temperature Stability	Rated Voltage (V)	200	400
	-25°C / +20°C	4	6
	Impedance ratio at 120Hz		
Load Life	Capacitance Change	≤ ±20% of initial value	
	Dissipation Factor	≤ 200% of initial specified value	
	Leakage current	≤ initial specified value	
Shelf Life	At + 105°C no voltage application after 1000 hours the capacitor shall meet the limits for load life characteristics. (with voltage treatment)		

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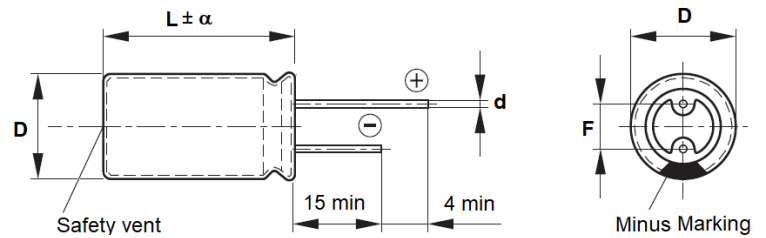
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DIMENSION

Unit: mm

D+0.5(max)	16	18
F±0.5	7.5	7.5
d±0.05	0.8	0.8
α	2.0	2.0



RIPPLE CURRENT COEFFICIENTS

Working Voltage	Frequency Coefficient				
	60Hz	120Hz	1KHz	10KHz	100KHz
200V	0.80	1.00	1.30	1.40	1.60
400V	0.75	1.00	1.50	1.75	1.85

Temperature Coefficient	
°C	Factor
65°C	1.80
85°C	1.50
105°C	1.00

CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		200VDC (2E)		400VDC (2G)	
		DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)
22	220	--	--	16x25	170
33	330	--	--	16x25	210
39	390	--	--	16x32	260
		--	--	18x25	250
47	470	--	--	16x32	280
56	560	--	--	16x40	340
		--	--	18x32	330
68	680	--	--	18x36	380
82	820	--	--	18x40	440
100	101	16x25	400	--	--
120	121	16x32	480	--	--
		18x25	470	--	--
150	151	16x32	540	--	--
		18x25	520	--	--
180	181	16x40	660	--	--
		18x32	630	--	--
220	221	18x36	730	--	--
		18x40	770	--	--

Note:

1. Max ripple current :mA(rms) at 105°C. 120Hz

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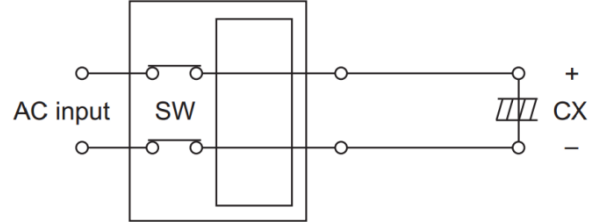
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DC OVERVOLTAGE TEST CONDITION

The vent will be operated and the capacitor shall become an open circuit without burning the material when the following excess DC voltage is applied.

Rated voltage	Current	Test DC voltage
200 VDC	4A	300/375 VDC
400 VDC	2A	500/600 VDC

Constant DC voltage/ current power supply



PART NUMBERING SYSTEM

NS (1) 2G (2) 220 (3) M (4) L (5) 250 (6) A (7) F (8)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	NS	Aluminum Electrolytic Capacitors	No Sparks With DC Overvoltage, 2KHrs 105°C
(2)	Rated Voltage Code	2G	2G: 400V	DC working voltage, See Table Below
(3)	Capacitance	220	220: 22µF	First two digit: significant, Third: Multiplier
(4)	Tolerance	M	M: ± 20%	-20% ~ +20%
(5)	Case Diameter Code	L	16: 16 mm	See Table Below
(6)	Case Height	250	250: 25.0 mm	Third digit denotes the first decimal place
(7)	Package	A	A: Tape & Ammo	R: Tape & Reel, Blank : Bulk
(8)	Taping Pitch Code	F	F: 7.5 mm	See Table Below, Blank: Bulk

Voltage	4	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	500
Code	0G	0J	1A	1C	1E	1V	1H	1J	2A	2C	2D	2E	2V	2G	2W	2H

Diameter	4	5	6.3	8	10	12.5	14.5	16	18	20	22	25
Code	D	E	F	H	J	K	U	L	M	N	P	Q

Pitch	1.5	2	2.5	3.5	5	7.5
Code	A	B	C	D	E	F

LEGACY PART NUMBERING SYSTEM

NS (1) 400V (2) 220 (3) M (4) TA (5) 1625 (6)

No	(1)	(2)	(3)	(4)	(5)	(6)
Item	Meritek Series	Rated Voltage	Capacitance	Tolerance	Package	Case Size

*Specifications subject to change without notice.