

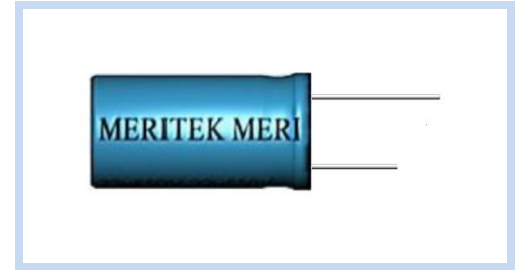
Aluminum Electrolytic Capacitors 1000Hrs 85°C Non-Polar 5 mm

NPS Series

MERITEK

FEATURE

- Operating Temperature: -40°C ~ +85°C
- Load Life of 1000 Hours at +85°C
- Non Polarity Series With 5mm Height



SPECIFICATIONS

Item	Characteristic						
Operation Temperature Range	-40°C ~ + 85°C						
Rated Working Voltage	6.3 ~ 50VDC						
Capacitance Tolerance	±20% (M) at 120Hz 20°C						
Leakage Current at 20°C	I ≤ 0.05CV or 10 (μA) *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)	6.3	10	16	25	35	50
	Surge Voltage (V)	8	13	20	32	44	63
Dissipation Factor-tan δ At 120Hz 20°C	Rated Voltage (V)	6.3	10	16	25	35	50
	tan δ max	0.24	0.20	0.17	0.17	0.15	0.15
Low Temperature Stability	Impedance ratio at 120Hz						
	Rated Voltage (V)	6.3	10	16	25	35	50
	-25°C / +20°C	4	3	2	2	2	2
	-40°C / +20°C	10	8	6	4	3	3
Load Life	After 1000 hours application of W.V. and +85°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage) (The polarity need to exchange every 250 hours)						
	Capacitance Change	≤ ±20% of initial value					
	Dissipation Factor	≤ 200% of initial specified value					
	Leakage current	≤ initial specified value					
Shelf Life	At + 85°C no voltage application after 500 hours the capacitor shall meet the limits for load life characteristics. (with voltage treatment)						

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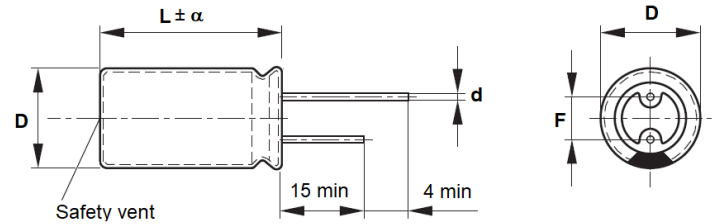
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DIMENSION

Unit: mm

D+0.5(max)	4	5	6.3
F±0.5	1.5	2.0	2.5
d±0.05	0.45	0.45	0.45
α	1.0	1.0	1.0



CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		6.3VDC (0J)		10VDC (1A)		16VDC (1C)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
4.7	4R7				→	4x5	12
10	100	4x5	14	4x5	17	5x5	23
22	220	5x5	28	6.3x5	33	6.3x5	37
33	330	6.3x5	37	6.3x5	41	6.3x5	49
47	470	6.3x5	45				

Capacitance		25VDC (1E)		35VDC (1V)		50VDC (1H)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
1.0	1R0				→	4x5	8.4
2.2	2R2				→	5x5	13
3.3	3R3				→	5x5	17
4.7	4R7	5x5	16	5x5	18	6.3x5	20
10	100	6.3x5	27	6.3x5	29		

Note:

1. Max ripple current :mA(rms) at 85°C. 120Hz
2. All blank voltage on sleeve marking is the same voltage as "→"point to

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PART NUMBERING SYSTEM

NPS 1H 1R0 M D 050 A B
(1) (2) (3) (4) (5) (6) (7) (8)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	NPS	Aluminum Electrolytic Capacitors	Non-Polar 5mm Height, 1000Hrs 85°C
(2)	Rated Voltage Code	1H	50V:50V	DC working voltage, See Table Below
(3)	Capacitance	1R0	1R0:1.0μF	First two digit: significant, Third: Multiplier
(4)	Tolerance	M	M: ± 20%	-20% ~ +20%
(5)	Case Diameter Code	D	D: 4 mm	See Table Below
(6)	Case Height	050	050: 5 mm	Third digit denotes the first decimal place
(7)	Package	A	A: Tape & Ammo	R: Tape & Reel, Blank : Bulk
(8)	Taping Pitch Code	B	B: 2.0 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

NPS 50V 1R0 M TA 45
(1) (2) (3) (4) (5) (6)

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

*Specifications subject to change without notice.