

NB Series

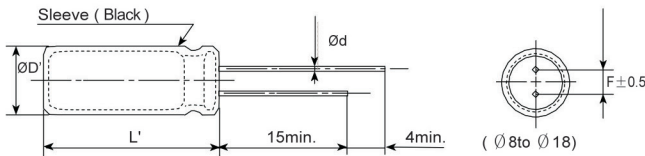
- High reliability high temperature
- Endurance: +130°C 2,000 to 5,000 hours
- RoHS Compliant



◆ SPECIFICATIONS

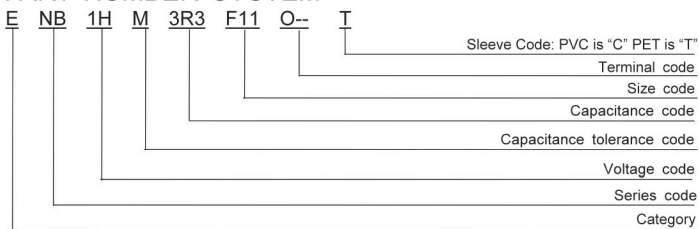
Items	Characteristics								
Category	-40 to +130°C								
Temperature Range	-40 to +130°C								
Rated Voltage Range	10 to 100V _{dc}								
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)								
Leakage Current	I ≅ 0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)								
Dissipation Factor (tanδ)	Rated voltage (V _{dc})	10	16	25	35	50	63	100	(at 20°C, 120Hz)
	tanδ (Max.)	0.20	0.16	0.14	0.12	0.10	0.09	0.08	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	10	16	25	35	50	63	100	
	Z(-25°C)/Z(+20°C)	3	2						
	Z(-40°C)/Z(+20°C)	6	4	3					
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied at 130°C.								
	Capacitance change	≤ ±30% of the initial value					Case Dia		Lifetime (hours)
	D.F. (tanδ)	≤ 300% of the initial specified value					ØD = 8		2,000
	Leakage current	≤ The initial specified value					ØD = 10		3,000
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 130°C without voltage applied.								
	Capacitance change	≤ ±30% of the initial value					ØD ≥ 12.5		5,000
	D.F. (tanδ)	≤ 300% of the initial specified value							
	Leakage current	≤ 500% The initial specified value							

◆ DIMENSIONS [mm]



ØD	8	10	12.5	16	18
Ød	0.5	0.6	0.6	0.6	0.8
F	3.5	5.0	5.0	7.5	7.5
ØD'	ØD+0.5max.				
L'	L+2max.				

◆ PART NUMBER SYSTEM



※Sleeve Code and Terminal Code should follow the part number system

◆ RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current (Hz)

Freq. (Hz)	50/60	120	1k	10k	100k
Cap. < 10	0.35	0.42	0.60	0.80	1.00
10 ≤ Cap. < 47	0.45	0.55	0.75	0.90	1.00
47 ≤ Cap. < 470	0.60	0.70	0.85	0.95	1.00
470 ≤ Cap. < 2200	0.65	0.75	0.90	0.98	1.00
Cap. ≥ 2200	0.75	0.80	0.95	1.00	1.00

The endurance of capacitors is shortened with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.