

HF Series

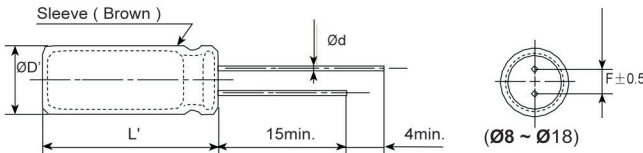
- 105°C Long Life, High ripple current, For Power Supply
- Endurance: 105°C 5000~8000hours
- RoHS Compliant



◆ SPECIFICATIONS

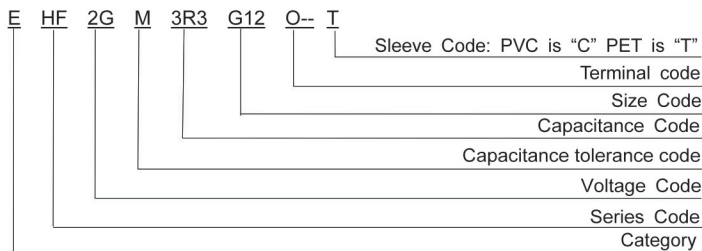
Items	Characteristics																
Category	-25 to +105°C																
Temperature Range	-25 to +105°C																
Rated Voltage Range	160 to 450V _{dc}																
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)																
Leakage Current			After 1 minutes		After 5 minutes		Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C)										
	CV ≤ 1000		I ≤ 0.1CV+40 μA		I ≤ 0.03CV+15 μA												
	CV > 1000		I ≤ 0.04CV+100 μA		I ≤ 0.02CV+25 μA												
Dissipation Factor (tanδ)	Rated voltage (V _{dc})	160	200	250	350	400	450	(at 20°C, 120Hz)									
	tanδ (Max.)	0.15	0.15	0.15	0.20	0.20	0.20										
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	160	200	250	350	400	450	(at 120Hz)									
	Z(-25°C)/Z(+20°C)	3	3	3	6	6	6										
Endurance	The following specification shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 105°C.																
	Capacitance change	≤ ±20% of the initial value						<table border="1"> <tr> <th>Case Dia</th> <th>Life time (hours)</th> </tr> <tr> <td>∅D = 8</td> <td>5000</td> </tr> <tr> <td>∅D = 10</td> <td>8000</td> </tr> <tr> <td>∅D = 12.5</td> <td>10000</td> </tr> </table>		Case Dia	Life time (hours)	∅D = 8	5000	∅D = 10	8000	∅D = 12.5	10000
	Case Dia	Life time (hours)															
	∅D = 8	5000															
∅D = 10	8000																
∅D = 12.5	10000																
D.F. (tanδ)	≤ 200% of the initial specified value																
Leakage current	≤ The initial specified value																
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied.																
	Capacitance change	≤ ±20% of the initial value															
	D.F. (tanδ)	≤ 200% of the initial specified value															
	Leakage current	≤ 200% of the initial specified value															

◆ DIMENSIONS [mm]



∅D	8	10	12.5	16	18
∅d	0.5	0.6	0.6	0.8	0.8
F	3.5	5.0	5.0	7.5	7.5
∅D'	∅D+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

Cap(μF) \ Freq.(Hz)	120	1K	10K	100K
Cap. < 100	1.0	1.75	2.25	2.50
Cap. > 100	1.0	1.67	2.05	2.25

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.