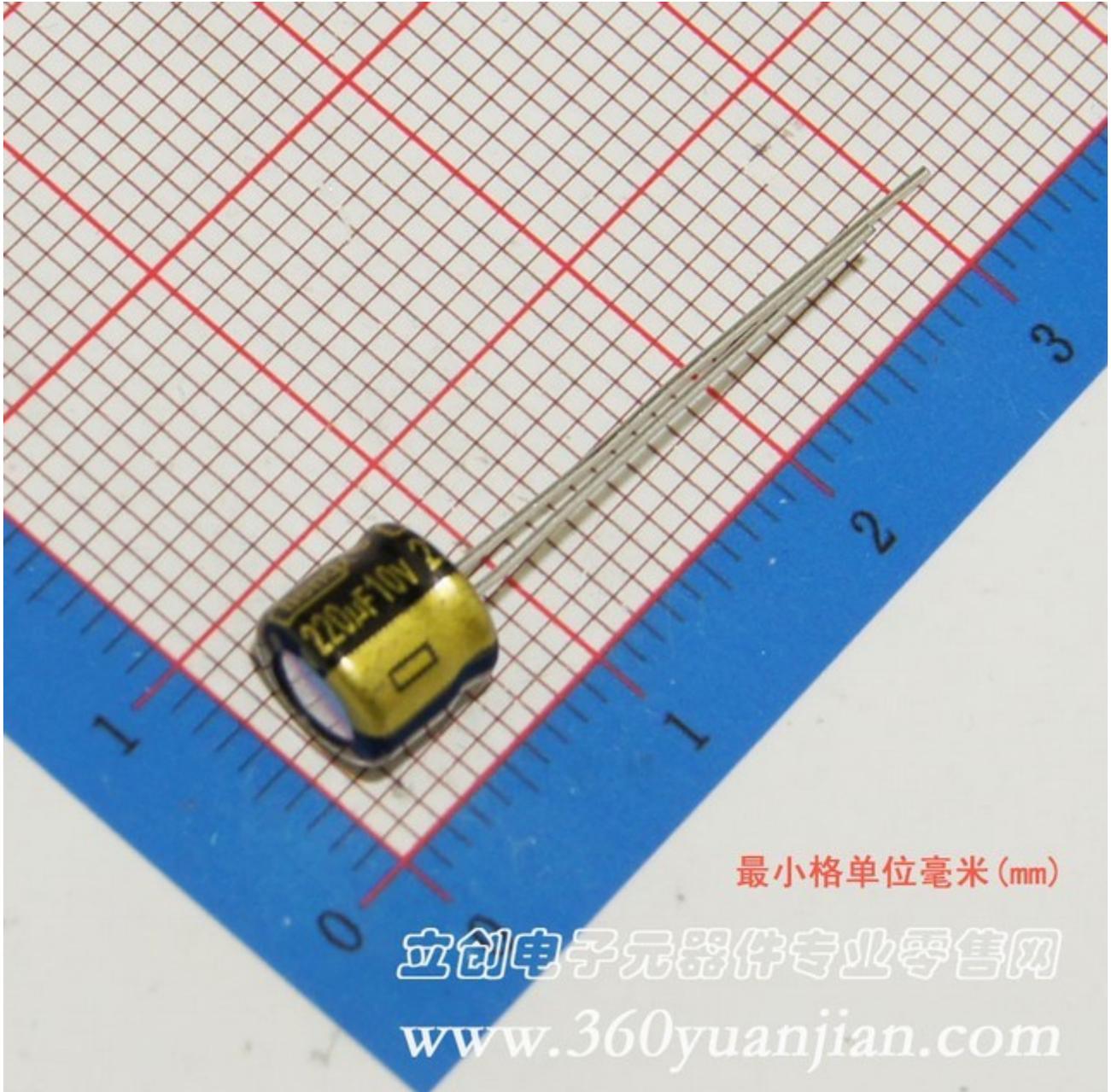


此商品编号对应的规格参数是： 220uF 10V 黑金 6.3\*5

此商品的实物图片为：

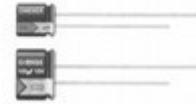


## EF Series

5mmL(高), +105°C, Low Impedance(低阻抗品)

### FEATURES

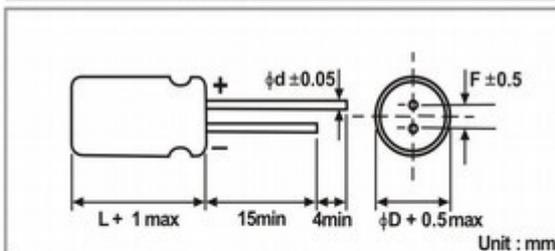
1. Low Impedance over wide temperature range of -40°C~105°C, with 5mm height.
2. Suitable for DC-DC converters where smaller case size and lower impedance are required.



### SPECIFICATIONS

Item	Performance Characteristics	
Operating Temperature Range	-40 to +105°C	
Rated Working Voltage Range	6.3 to 35V	
Nominal Capacitance Range	1 to 100 $\mu$ F	
Capacitance Tolerance	$\pm 20\%$ (120Hz, +20°C)	
Leakage Current	$I \leq 0.01CV$ or $3(\mu A)$ whichever is greater measured after 2 minutes application of rated working voltage at +20°C	
$\tan \delta$ (120Hz, +20°C)	Working Voltage (V)	6.3    10    16    25    35
	$\tan \delta$ (max.)	0.22    0.20    0.18    0.14    0.12
Low Temperature Characteristics	Impedance ratio max. at 120Hz	
	Working Voltage (V)	6.3    10    16    25    35
	Z-25°C / Z+20°C	2    3    2    2    2
	Z-40°C / Z+20°C	4    8    6    3    3
High Temperature Loading	Test conditions	Post test requirements at +20°C
	Duration : 1000 hours Ambient temp. : +105°C Applied voltage : Rated DC working voltage with rated ripple current	Leakage current : $\leq$ Initial specified value Cap. change : within $\pm 20\%$ of initial measured value $\tan \delta$ : $\leq 200\%$ of initial specified value
Shelf Life	Test conditions	Post test requirements at +20°C
	Duration : 1000 hours Ambient temp. : +105°C Applied voltage : (None)	Leakage current : $\leq$ Initial specified value Cap. change : within $\pm 20\%$ of initial measured value $\tan \delta$ : $\leq 200\%$ of initial specified value
Others	JIS C - 5101 (IEC 60384)	

### CASE SIZE TABLE



$\phi D$	4	5	6.3					
F	1.5	2.0	2.5					
$\phi d$	0.45							

### RIPPLE CURRENT MULTIPLIER

Frequency Coefficient					
Cap( $\mu$ F)	Coefficient	120	1k	10k	100k
	~ 100	0.40	0.75	0.90	1.00

## EF Series

5mmL(高), +105°C, Low Impedance(低阻抗品)

### STANDARD RATINGS

Voltage (Code)		6.3V (0J)			10V (1A)			16V (1C)		
Cap.( $\mu$ F)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
1	105									
1.5	155									
2.2	225									
3.3	335									
4.7	475									
6.8	685									
10	106							4 x 5	5.0	50
15	156							5 x 5	2.6	80
22	226	4 x 5	5.0	50	5 x 5	2.6	80	5 x 5	2.6	80
33	336	5 x 5	2.6	80	5 x 5	2.6	80	6.3 x 5	1.3	115
47	476	5 x 5	2.6	80	6.3 x 5	1.3	115	6.3 x 5	1.3	115
68	686	6.3 x 5	1.3	115						
100	107	6.3 x 5	1.3	115						

Maximum Allowable Ripple Current (mA rms) at 105°C 100kHz

Case Size  $\phi$ D x L(mm)

Maximum Impedance ( $\Omega$ ) at 20°C 100kHz

Voltage (Code)		25V (1E)			35V (1V)					
Cap.( $\mu$ F)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current			
1	105				4 x 5	5.0	50			
1.5	155				4 x 5	5.0	50			
2.2	225				4 x 5	5.0	50			
3.3	335				4 x 5	5.0	50			
4.7	475	4 x 5	5.0	50	4 x 5	5.0	50			
6.8	685	4 x 5	5.0	80	5 x 5	2.6	80			
10	106	5 x 5	2.6	80	5 x 5	2.6	80			
15	156	6.3 x 5	1.3	115	6.3 x 5	1.3	115			
22	226	6.3 x 5	1.3	115	6.3 x 5	1.3	115			
33	336	6.3 x 5	1.3	115						

Maximum Allowable Ripple Current (mA rms) at 105°C 100kHz

Case Size  $\phi$ D x L(mm)

Maximum Impedance ( $\Omega$ ) at 20°C 100kHz