

FG

High Grade Standard Type, For Audio Equipment

series



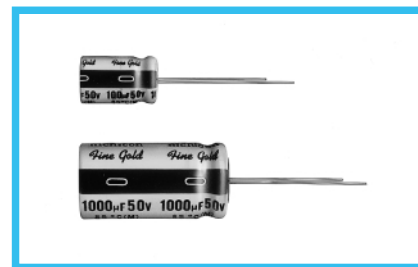
For Audio Use



Anti-Solvent Feature

- "Fine Gold" MUSE acoustic series suited for high grade audio equipment, using state of the art etching techniques.
- Rich sound in the bass register and clearer high end, most suited for AV equipment like DVD.
- Compliant to the RoHS directive (2011/65/EU).

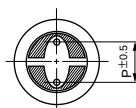
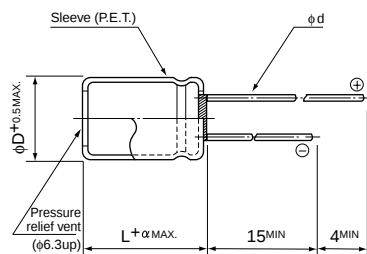
KZ ← High Grade | **FG** | High Grade → FW



Specifications

Item	Performance Characteristics										
Category Temperature Range	−40 to +85°C										
Rated Voltage Range	6.3 to 100V										
Rated Capacitance Range	0.1 to 10000μF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.01CV or 3 (μA) , whichever is greater.										
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C										
	Rated voltage (V)	6.3	10	16	25	35	50	63	80	100	
	tan δ (MAX.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08	
	For capacitance of more than 1000μF add 0.02 for every increase of 1000μF.										
Stability at Low Temperature	Measurement frequency : 120Hz										
	Rated voltage (V)		6.3	10	16	25	35	50	63	80	100
	Impedance ratio ZT / Z20 (MAX.)	Z−25°C / Z+20°C	4	3	2	2	2	2	2	2	2
Z−40°C / Z+20°C		8	6	4	4	3	3	3	3	3	
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 85°C.		Capacitance change		Within ±20% of the initial measurement for units of not more than 16V or φ6.3 Within ±15% of the initial measurement for units of not less than 25V or above φ6.3						
			tan δ		150% or less than the initial specified value						
			Leakage current		Less than or equal to the initial specified value						
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.										
Marking	Printed with black color letter on gold sleeve.										

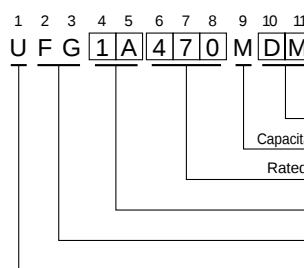
Radial Lead Type



	(mm)						
φD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.6	0.6	0.8	0.8	0.8

α	(L < 20)	1.5
	(L ≥ 20)	2.0

Type numbering system (Example : 10V 47µF)



φD	Code
5	DM
6.3	EM
8 - 10	PM
12.5 to 18	HM

- Please refer to page 20 about the end seal configuration.

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

• Dimension table in next page.

■Dimensions

Cap.(μF)	V		6.3		10		16		25		35		50	
	Code		0J		1A		1C		1E		1V		1H	
0.1	0R1												5×11	1.1
0.22	R22												5×11	2.4
0.33	R33												5×11	3.6
0.47	R47												5×11	5.0
1	010												5×11	9.0
2.2	2R2												5×11	18
3.3	3R3												5×11	22
4.7	4R7												5×11	27
10	100												5×11	39
22	220								5×11	50	6.3×11	60	6.3×11	65
33	330						5×11	57	6.3×11	70	6.3×11	75	8×11.5	93
47	470			5×11	60	6.3×11	74	6.3×11	85	8×11.5	101	8×11.5	111	
100	101			6.3×11	99	8×11.5	128	8×11.5	140	10×12.5	176	10×16	215	
220	221			8×11.5	170	10×12.5	226	10×16	260	10×20	320	12.5×20	390	
330	331			10×12.5	247	10×16	309	10×20	351	12.5×20	446	12.5×20	488	
470	471	10×12.5	270	10×16	330	10×20	406	12.5×20	476	12.5×25	590	16×25	650	
1000	102	10×20	485	12.5×20	601	12.5×25	723	16×25	854	16×25	1060	16×31.5	1143	
2200	222	12.5×25	867	16×25	1047	16×25	1290	16×35.5	1570	18×35.5	1840			
3300	332	16×25	1135	16×31.5	1520	16×35.5	1720	18×40	1794					
4700	472	16×31.5	1431	16×35.5	1840	18×35.5	2140							
6800	682	18×35.5	1810	18×40	2049									
10000	103	18×40	2100											

Cap.(μF)	V		63		80		100	
	Code		1J		1K		2A	
0.1	0R1						5×11	2.3
0.22	R22						5×11	5.5
0.33	R33						5×11	8.0
0.47	R47						5×11	10
1	010						5×11	15
2.2	2R2						5×11	22
3.3	3R3						5×11	27
4.7	4R7						5×11	36
10	100	6.3×11	50	6.3×11	55		8×11.5	65
22	220	8×11.5	85	8×11.5	100		10×12.5	110
33	330	8×11.5	105	10×12.5	130		10×16	150
47	470	10×12.5	140	10×16	170		10×20	190
100	101	10×20	255	12.5×20	270		12.5×20	300
220	221	12.5×20	420	12.5×25	490		16×25	549
330	331	12.5×25	541	16×31.5	650		16×31.5	734
470	471	16×25	840	16×35.5	920		18×35.5	980
1000	102	18×35.5	1400			Case size φD×L (mm)	Rated ripple	

Rated ripple current (mA rms) at 85°C 120Hz

●Frequency coefficient of rated ripple current

Cap.(μF)	Frequency	50Hz	120Hz	300Hz	1kHz	10kHz or more
0.1 to 47		0.75	1.00	1.35	1.57	2.00
100 to 470		0.80	1.00	1.23	1.34	1.50
1000 to 10000		0.85	1.00	1.10	1.13	1.15