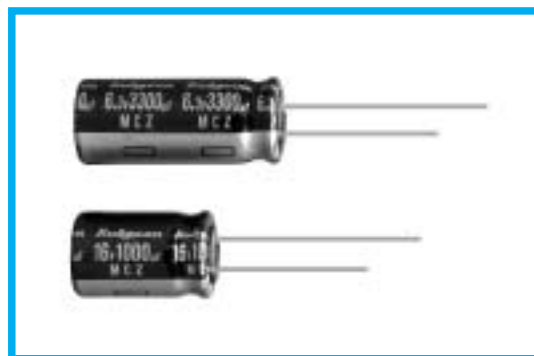


MCZ SERIES

105°C Ultra Low ESR.

◆ FEATURES

- Ultra Low ESR for VRM.
- Enabled high ripple current by a reduction of ESR at high frequency range.
- RoHS compliance.



◆ SPECIFICATIONS

Items	Characteristics												
Category Temperature Range	−40~+105℃												
Rated Voltage Range	6.3~16V.DC												
Capacitance Tolerance	±20% (20℃, 120Hz)												
Leakage Current(MAX)	I=0.03CV (After 2 minutes application of rated voltage) I=Leakage Current(μ A) C=Rated Capacitance(μ F) V=Rated Voltage(V)												
Dissipation Factor(MAX) (tan δ)	<table><tr><td>Rated Voltage (V)</td><td>6.3</td><td>10</td><td>16</td></tr><tr><td>tan δ</td><td>0.22</td><td>0.19</td><td>0.16</td></tr></table> (20℃, 120Hz) When rated capacitance is over 1000 μ F, tan δ shall be added 0.02 to the listed value with increase of every 1000 μ F.	Rated Voltage (V)	6.3	10	16	tan δ	0.22	0.19	0.16				
Rated Voltage (V)	6.3	10	16										
tan δ	0.22	0.19	0.16										
Endurance	After applying rated voltage with rated ripple current for 2000hrs at 105℃, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td>Within ±25% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td>Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td>Not more than the specified value.</td></tr></table>	Capacitance Change	Within ±25% of the initial value.	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.						
Capacitance Change	Within ±25% of the initial value.												
Dissipation Factor	Not more than 200% of the specified value.												
Leakage Current	Not more than the specified value.												
Low Temperature Stability Impedance Ratio(MAX)	<table><tr><td>Rated Voltage (V)</td><td>6.3</td><td>10</td><td>16</td></tr><tr><td>Z(−25℃)/Z(20℃)</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z(−40℃)/Z(20℃)</td><td>3</td><td>3</td><td>3</td></tr></table> (120Hz)	Rated Voltage (V)	6.3	10	16	Z(−25℃)/Z(20℃)	2	2	2	Z(−40℃)/Z(20℃)	3	3	3
Rated Voltage (V)	6.3	10	16										
Z(−25℃)/Z(20℃)	2	2	2										
Z(−40℃)/Z(20℃)	3	3	3										

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

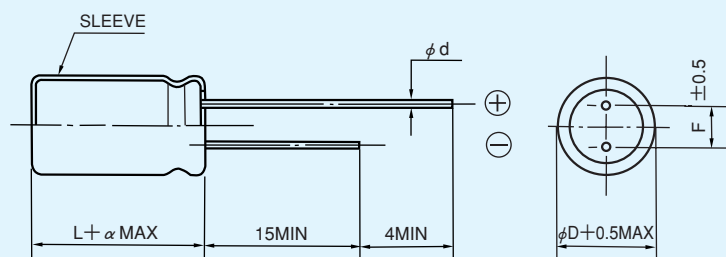
Frequency (Hz)	120	1k	10k	100k $\leq$
Coefficient	0.50	0.80	0.90	1.00

◆PART NUMBER

Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	DXL Case Size	

◆ DIMENSIONS

(mm)



ϕD	8	10
ϕd	0.6	
F	3.5	5.0
α	$L \leq 16 : \alpha = 1.5$ $L \geq 20 : \alpha = 2.0$	

◆ STANDARD SIZE

Rated voltage 6.3V(0J)			
Rated capacitance (μF)	Size $\phi D \times L$ (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	ESR (m Ω MAX/20°C, 100kHz)
820	8X11.5	1340	21
1200	8X16	1850	18
1800	8X20	2350	12
1500	10X12.5	1960	16
1800	10X16	2460	12.5
2200	10X20	2770	11
3300	10X25	3230	9

Rated voltage 10V(1A)			
Rated capacitance (μF)	Size $\phi D \times L$ (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	ESR (m Ω MAX/20°C, 100kHz)
680	8X11.5	1340	21
1000	8X16	1850	18
1500	8X20	2350	12
1000	10X12.5	1960	16
1500	10X16	2460	12.5
1800	10X20	2770	11
2200	10X25	3230	9

Rated voltage 16V(1C)			
Rated capacitance (μF)	Size $\phi D \times L$ (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	ESR (m Ω MAX/20°C, 100kHz)
470	8X11.5	1340	21
680	8X16	1850	18
1000	8X20	2350	12
680	10X12.5	1960	16
1000	10X16	2460	12.5
1500	10X20	2770	11
1800	10X25	3230	9