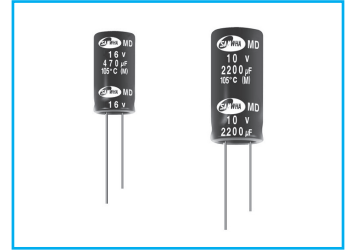
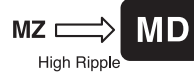


MD High Ripple Current, Ultra Low Impedance Series



- High ripple current compared with MZ series
- Enabled ripple current with extremely low impedance at high frequency range
- High reliability withstanding 2000 hours load life at 105°C
- Complied to the RoHS directive



Item	Characteristics			
Operating temperature range	-40 ~ +105°C			
Leakage current max.	I = 0.01CV or 3µA whichever is greater (after 2 minutes) I = 0.03CV or 4µA whichever is greater (after 1 minute)			
Capacitance tolerance	±20% at 120Hz, 20°C			
Dissipation factor max. (at 120Hz, 20°C)	Capacitance > 1000µF : tanδ increases by 0.02 for each 1000µF from below value.			
	WV	6.3	10	16
Low temperature characteristics (Impedance ratio at 120Hz)	tanδ	0.22	0.19	0.16
	WV	6.3	10	16
Load life	Z-40°C / Z+20°C	3	3	3
	After an application of DC bias voltage plus the rated AC ripple current for 2000 hours at 105°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.			
Shelf life (at 105°C)	Leakage current	Less than specified value		
	Capacitance change	Within ±25% of initial value		
	tanδ	Less than 200% of specified value		
After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4				

● DRAWING (See page 91)

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Item µF	6.3			10			16		
	ØD × L (mm)	Impedance (Ω) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	ØD × L (mm)	Impedance (Ω) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	ØD × L (mm)	Impedance (Ω) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz
470							8 × 11.5	0.021	1340
680				8 × 11.5	0.021	1340	8 × 15	0.020	1850
820	8 × 11.5	0.021	1340				10 × 12.5	0.020	1960
1000				8 × 15	0.020	1850	8 × 20	0.016	2350
				10 × 12.5	0.016	1960	10 × 16	0.016	2460
1500	10 × 12.5	0.016	1960	8 × 20	0.013	2350	10 × 20	0.014	2805
				10 × 16	0.013	2460			
1800	10 × 16	0.013	2460	10 × 20	0.011	2805	10 × 25	0.013	3230
2200	10 × 20	0.011	2805	10 × 25	0.009	3230			
3300	10 × 25	0.009	3230						

● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

µF	Frequency	120Hz	1kHz	10kHz	50kHz	100kHz ≤
~ 820		0.55	0.77	0.94	0.97	1.00
1000 ~ 1800		0.60	0.80	0.96	0.98	1.00
2200 ~		0.70	0.85	0.98	0.99	1.00