Koshin

MRB Surface Mount Aluminum Electrolytic Capacitors

Vertical SMD Type
For LCD MT/TV
Bi–polarized
Guaranteed 2000 hours at 85℃
RoHS compliant
Halogen–free

Photo

Marking color：Blue

Specifications

No.	Item	Performance							
1	Temperature range(℃)	-40 to +85							
2	Rated Voltage Range	6.3-50VDC							
3	Leakage current (μA)	Rated Voltage (VDC)	6.3-50						
		0.05CV or 10uA,whichever is greater (at 20℃, 2minutes)							
4	Capacitance tolerance (%)	±20 (20℃,120Hz)							
5	Tangent of the loss angle (Tan δ)	Rated voltage (V)	6.3	10	16	25	35	50	
		Tan δ(max)	0.32	0.26	0.24	0.22	0.20	0.20	
		0.02 is added to each 1000uF increase over 1000uF (20℃,120Hz)							
6	Low temperature characteristics Impedance ratio (max)	Rated voltage (V)	6.3	10	16	25	35	50	
		$Z_{(-25℃)}/Z_{(+20℃)}$	4	3	2	2	2	2	
		$Z_{(-40℃)}/Z_{(+20℃)}$	12	8	6	4	3	3	
7	Endurance (85℃) (Applied ripple current)	Test time	The following specifications shall be satisfied when the capacitors are restores to 20℃ after the rated voltage is applied for 2,000 hours at 85℃ with its polarization reversed every 250 hours.						
		Rated Voltage(VDC)	6.3-50						
		Leakage current	The initial specified value or less						
		Percentage of capacitance change	Within ±20% of initial value						
		Tangent of the loss angle	200% or less of the initial specified value						
8	Shelf life (85℃)	Test time	The following specifications shall be satisfied when the capacitors are restores to 20℃ after exposing them for 1,000 hours at85℃ without voltage applied. The rated voltage shall be applied to the capacitors for a minimum for 30 minutes, at least 24 hours and not more than 48 hours before the measurements.						
		Rated Voltage(VDC)	6.3-50						
		Leakage current	The initial specified value or less						
		Percentage of capacitance change	Within ±15% of initial value						
		Tangent of the loss angle	150% or less of the initial specified value						

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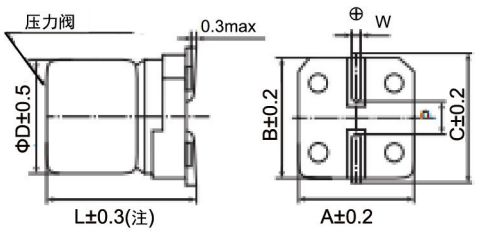
Dimensions

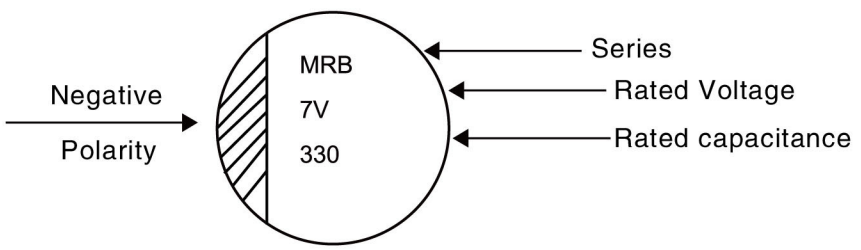


: Dummy terminals

Note1:L±0.5 for 8x7(F070)-18x21.5(K215)

Case Code	D	L	A	B	C	W	P
B052	4	5.2	4.3	4.3	5.1	0.5-0.8	1.0
C052	5	5.2	5.3	5.3	5.9	0.5-0.8	1.4
E052	6.3	5.2	6.6	6.6	7.2	0.5-0.8	1.9

Marking



Coefficient of Frequency for Ripple Current

Frequency (Hz) / Capacitance (uF)	120	1K	10K	100K
1.0	1.00	1.50	1.75	1.80
2.2 to 10	1.00	1.30	1.40	1.50

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5℃ rise. When long life performance is required in actual use,the rms ripple current has to be reduced.

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension:ΦDXL(mm)
Ripple Current: mA/rms at 120Hz,85℃

V.DC / Contents μF	6.3V		10V		16V		25V	
	ΦDXL	mA	ΦDXL	mA	ΦDXL	mA	ΦDXL	mA
3.3							4X5.4	9
4.7					4X5.4	10	5X5.4	18
10	4X5.4	12			5X5.4	18	6.3X5.4	28
22	5X5.4	22			6.3X5.4	28		
33			6.3X5.4	33				
47	6.3X5.4	36						

V.DC / Contents μF	35V		50V	
	ΦDXL	mA	ΦDXL	mA
1.0			4X5.4	5
2.2	4X5.4	8	5X5.4	9
3.3			5X5.4	11
4.7	5X5.4	12	6.3X5.4	14
10	6.3X5.4	20		