

Vertical SMD Type

For CD/DVD-ROM, Navigation, LCD MT/TV

Size from $\Phi 4 \times 5.7L$ to $\Phi 18 \times 21.5L$

Guaranteed 1000–2000 hours at 105°C

RoHS compliant

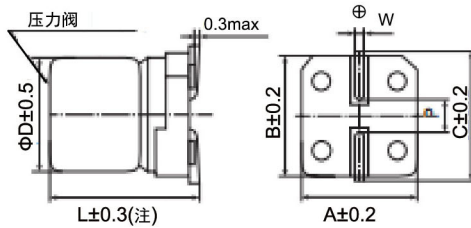
Halogen-free



Specifications

No.	Item	Performance											
1	Temperature range(°C)	-40 to +105											
2	Rated Voltage Range	6.3-450VDC											
3	Leakage current (µA)	Rated Voltage (VDC)	6.3-100							160-450			
		4X5.7-10X10.5	0.01CV or 3µA, whichever is greater (at 20°C, 2minutes)							--			
		12.5X13.5-18X21.5	0.03CV or 4µA, whichever is greater (at 20°C, 1minutes)							0.04CV+100µA (at 20°C, 1minutes)			
4	Capacitance tolerance (%)	±20 (20°C, 120Hz)											
5	Tangent of the loss angle (Tan δ)	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160-250	400-450	
		Tanδ(max)	B057-G105	0.35	0.24	0.26	0.16	0.14	0.12	0.12	0.12	—	—
			H135-K215	0.38	0.34	0.30	0.26	0.22	0.18	0.14	0.10	0.20	0.25
0.02 is added to each 1000µF increase over 1000µF (20°C, 120Hz)													
6	Low temperature characteristics Impedance ratio (max)	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160-250	400-450	
		B057-G105	$Z_{(-25^{\circ}\text{C})}/Z_{(+20^{\circ}\text{C})}$	4	3	2	2	2	2	2	3	—	—
			$Z_{(-40^{\circ}\text{C})}/Z_{(+20^{\circ}\text{C})}$	12	8	6	4	3	3	3	4	—	—
		H135-K215	$Z_{(-25^{\circ}\text{C})}/Z_{(+20^{\circ}\text{C})}$	5	4	3	2	2	2	2	2	3	6
			$Z_{(-40^{\circ}\text{C})}/Z_{(+20^{\circ}\text{C})}$	12	10	8	5	4	3	3	3	6	10
7	Endurance (105°C) (Applied ripple current)	Test time	The following specifications shall be satisfied when the capacitors are restores to 20°C after the rated voltage is applied for 2,000 hours at 105°C (B057–E077 1,000 hours)										
		Rated Voltage(VDC)	4-6.3			10-100				160-450			
		Leakage current	The initial specified value or less										
		Percentage of capacitance change	Within ± 30% of initial value			Within ± 25% of initial value				Within ± 20% of initial value			
		Tangent of the loss angle	300% or less of the initial specified value									200% or less of the initial specified value	
8	Shelf life (105°C)	Test time	The following specifications shall be satisfied when the capacitors are restores to 20°C after exposing them for 1,000 hours at 105°C without voltage applied (B057–D077 500 hours). 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)	4-6.3			10-100				160-450			
		Leakage current	The initial specified value or less										
		Percentage of capacitance change	Within ± 30% of initial value			Within ± 25% of initial value				Within ± 20% of initial value			
		Tangent of the loss angle	300% or less of the initial specified value									300% or less of the initial specified value	

Dimensions

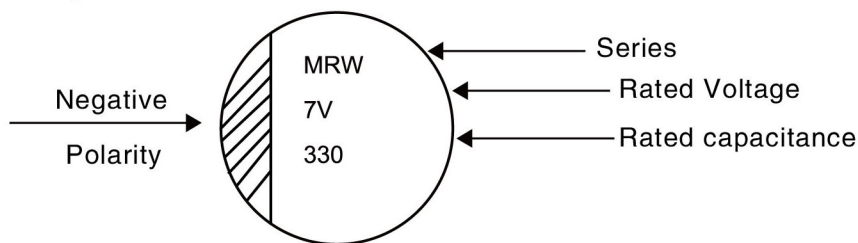


▨: Dummy terminals

Note1: $L \pm 0.5$ for 8x7(F070)-18x21 5(K215)

Case Code	D	L	A	B	C	W	P
B057	4	5.7	4.3	4.3	5.1	0.5-0.8	1.0
C057	5	5.7	5.3	5.3	5.9	0.5-0.8	1.4
E057	6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9
E077	6.3	7.7	6.6	6.6	7.2	0.5-0.8	1.9
F070	8	7.0	8.3	8.3	9.0	0.7-1.1	3.1
F105	8	10.5	8.3	8.3	9.0	0.7-1.1	3.1
G105	10	10.5	10.3	10.3	11.0	0.7-1.1	4.7
H135	12.5	13.5	13.0	13.0	13.7	1.0-1.3	4.2
H165	12.5	16.5	13.0	13.0	13.7	1.0-1.3	4.2
J165	16	16.5	17.0	17.0	18.0	1.0-1.3	6.5
J215	16	21.5	17.0	17.0	18.0	1.0-1.3	6.5
K165	18	16.5	19.0	19.0	20.0	1.0-1.3	6.5
K215	18	21.5	19.0	19.0	20.0	1.0-1.3	6.5

Marking



Coefficient of Frequency for Ripple Current

Case Code	Frequency (Hz)				
	Capacitance (uF)	120	1K	10K	100K
B057-G105	1.0	1.00	1.50	1.75	1.80
	2.2 to 10	1.00	1.30	1.40	1.50
	22 to 1,500	1.00	1.05	1.08	1.08
H135-K215	4.7	1.00	1.75	2.30	2.50
	10 to 68	1.00	1.50	1.75	1.80
	100 to 1,000	1.00	1.30	1.40	1.50
	2,200-10,000	1.00	1.05	1.08	1.08



Dimension: Φ DXL(mm)

Ripple Current: mA/rms at 120Hz, 105°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC Contents μ F	6.3V		10V		16V		25V	
	Φ DXL	mA	Φ DXL	mA	Φ DXL	mA	Φ DXL	mA
10					4X5.7	17	5X5.7	27
22	4X5.7		5X5.7	30	5X5.7	30	6.3X5.7	44
33	5X5.7	22	5X5.7	34	6.3X5.7	45	6.3X5.7	50
47	5X5.7	34	6.3X5.7	48	6.3X5.7	48	6.3X5.7	60
100	6.3X5.7	69	6.3X5.7	69	6.3X5.7	69	6.3X7.7	100
150	6.3X5.7	69	6.3X7.7	100	6.3X7.7	100	8X10.5	240
220	6.3X7.7	120	6.3X7.7	120	6.3X7.7	119	8X10.5	320
330	8X10.5	290	8X10.5	290	8X10.5	290	10X10.5	450
470	8X10.5	320	8X10.5	320	8X10.5	320	10X10.5	490
680	8X10.5	340	10X10.5	410	10X10.5	470	10X13.5	500
1,000	10X10.5	410	10X10.5	410	12X13.5	550	16X16.5	820
1,000					16X16.5	650	18X16.5	880
1,500	10X10.5	550	10X13.5	410	16X16.5	940	16X16.5	820
2,200	12.5X13.5	680	12.5X16.5	700	16X16.5	940	16X21.5	1,000
2,200	16X16.5	840	16X16.5	750	18X16.5	1,000	18X21.5	1,050
3,300	16X16.5	850	16X16.5	1,000	16X21.5	1,100	16X21.5	1,240
3,300	18X16.5	1,000	18X16.5	1,100	18X16.5	1,200		
4,700	16X21.5	1,200	16X16.5	1,200	16X21.5	1,200	18X21.5	1,300
4,700	18X16.5	1,200	16X21.5	1,300				
6,800	16X21.5	1,200	18X21.5	1,350	18X21.5	1,350		
6,800	18X21.5	1,350						



Dimension: Φ DXL(mm)
Ripple Current: mA/rms at 120Hz, 105°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC Contents μ F	35V		50V		63V		100V	
	Φ DXL	mA	Φ DXL	mA	Φ DXL	mA	Φ DXL	mA
1.0			4X5.7	8	4X5.7	8		
2.2			4X5.7	12	4X5.7	12		
3.3			4X5.7	15	5X5.7	17		
4.7	5X5.7	16	5X5.7	20	6.3X5.7	22		
10	5X5.7	27	6.3X5.7	32	6.3X5.7	32		
22	6.3X5.7	44	6.3X5.7	32	6.3X7.7	58	8X10.5	100
33	6.3X5.7	44	6.3X7.7	65	8X10.5	140	10X10.5	150
47	6.3X7.7	80	6.3X7.7	80	8X10.5	170	12.5X13.5	250
56	6.3X7.7	80	8X10.5	230	8X10.5	170	10X13.5	250
68	6.3X7.7	80	8X10.5	230	10X10.5	310	12.5X13.5	300
100	6.3X7.7	100	8X10.5	230	10X10.5	310	12.5X13.5	370
							16X16.5	440
150	8X10.5	260	10X10.5	370	10X13.5	400	16X16.5	440
220	10X10.5	375	10X10.5	370	12.5X13.5	470	16X21.5	750
220					12.5X16.5	560	18X16.5	750
330	10X10.5	450	12.5X13.5	500	12.5X16.5	700	18X21.5	980
330			16X16.5	600	18X16.5	750		
470	12.5X13.5	520	16X16.5	700	16X21.5	800		
470	16X16.5	650	18X16.5	750	18X16.5	900		
1,000	16X16.5	750	18X21.5	1,150	18X21.5	900		
1,000	18X16.5	1,000						
2,200	18X21.5	1,200						



Dimension: Φ DXL(mm)

Ripple Current: mA/rms at 120Hz, 105°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC Contents μ F	160V		200V		250V		400V		450V	
	Φ DXL	mA	Φ DXL	mA	Φ DXL	mA	Φ DXL	mA	Φ DXL	mA
3.3	6.3X7.7	50							12.5X13.5	40
4.7	6.3X7.7	50			12.5X13.5	65	12.5X13.5	50	12.5X16.0	50
10	8X10.5	65	12.5X13.5	80	12.5X16.5	105	16X16.5	85	16X16.5	85
22	10X13.5	80	12.5X16.5	110	16X16.5	180	18X21.5	130	18X21.5	125
33	12.5X13.5	95	16X16.5	210	16X21.5	220	18X21.5	130		
33					18X16.5	220				
47	16X16.5	250	16X21.5	270	18X21.5	280				
47			18X16.5	270						
68	16X21.5	320	18X21.5	320	16X21.5	220				
68	18X16.5	320								
100	16X21.5	350			18X21.5	280				

