

LL

**Feature: High ripple current capability.
High stability.**

SPECIFICATIONS

Item	Performance Characteristics													
Category Temperature Range	-25 to +105°C													
Working Voltage Range	200 to 450Vdc													
Capacitance Range	1 to 68 μ F													
Capacitance Tolerance	$\pm 20\%$ (at 25°C 120Hz)													
Dissipation Factor (tan δ) (at 25°C 120Hz)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>200 to 250</th> <th>350</th> <th>400 to 450</th> </tr> </thead> <tbody> <tr> <td>tan δ (Max)</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> </tr> </tbody> </table>	Rated Voltage (V)	200 to 250	350	400 to 450	tan δ (Max)	0.15	0.20	0.20					
	Rated Voltage (V)	200 to 250	350	400 to 450										
tan δ (Max)	0.15	0.20	0.20											
Leakage Current	$I \leq 0.03CV + 10 \mu A$ I: Leakage current. (μ A) C:Rated capacitance. (μ F) V: Rated voltage. (V) The rated voltage is impressed for two minutes.													
Endurance	After applying rated voltage to the capacitor for 5,000 hours at 105°C, the following characteristics shall be satisfied when the capacitor has been restored to 25°C.													
	<table border="1"> <thead> <tr> <th>Case size</th> <th>Life time</th> </tr> </thead> <tbody> <tr> <td>$\phi D \leq 6.3$</td> <td>2,000 hours</td> </tr> <tr> <td>$\phi D = 8$</td> <td>3,000 hours</td> </tr> <tr> <td>$\phi D \geq 10$</td> <td>5,000 hours</td> </tr> </tbody> </table> <table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>$\leq \pm 20\%$ of the initial value</td> </tr> <tr> <td>Dissipation factor (tan δ)</td> <td>$\leq 200\%$ of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>\leq specified value</td> </tr> </tbody> </table>	Case size	Life time	$\phi D \leq 6.3$	2,000 hours	$\phi D = 8$	3,000 hours	$\phi D \geq 10$	5,000 hours	Capacitance change	$\leq \pm 20\%$ of the initial value	Dissipation factor (tan δ)	$\leq 200\%$ of the specified value	Leakage current
Case size	Life time													
$\phi D \leq 6.3$	2,000 hours													
$\phi D = 8$	3,000 hours													
$\phi D \geq 10$	5,000 hours													
Capacitance change	$\leq \pm 20\%$ of the initial value													
Dissipation factor (tan δ)	$\leq 200\%$ of the specified value													
Leakage current	\leq specified value													
Shelf Life	After exposing the capacitor for 500 hours at 105°C, without applying voltage, the following characteristics shall be satisfied when the capacitor has been restored to 25°C.													
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Others	Conforms to JIS C-5141 (1991), characteristic W													

RIPPLE CURRENT MULTIPLIERS

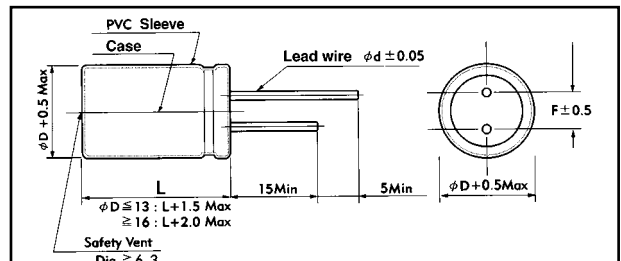
Temperature Multipliers

Temp (°C)	40	60	70	85	95	105
Factor	1.90	1.75	1.61	1.40	1.25	1.00

Frequency Multipliers

Vdc	Freq.(Hz)		50(60)	120	1K	10K	100K
	Cap.(μ F)						
200 to 450	1 to 68		0.80	1.00	1.40	1.60	1.60

DIMENSIONS(mm)



ϕD	5	6.3	8	10	13	16	18
ϕd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5

LL
Case size & Permissible Ripple Current

Vdc μ F	200		250		350		400		450	
	1	5X11	16	5X11	15	6.3x11	15	6.3x11	17	6.3x11
2.2	6.3X11	25	6.3X11	23	6.3x11	26	8x12	30	10x12	24
2.7	6.3X11	28	6.3X11	28	8x12	32	10x12	35	10x12	30
3.3	8x12	30	8x12	32	10x12	38	10x12	38	10x16	32
4.7	8x12	39	8x12	39	10x16	45	10x16	50	10x20	41
5.6	8x12	42	10x12	45	10x16	50	10x20	55	10x20	46
6.8	10x12	55	10x12	60	10x16	55	10x20	60	13x20	55
8.2	10x12	60	10x12	65	10x20	65	13x20	75	13x20	60
10	10x16	65	10x16	74	10x20	80	13x20	90	13x25	75
15	10x20	80	10x20	95	13x20	100	13x25	130	13x25	95
22	13x20	120	13x20	130	13x20	115	16x25	165	16x25	125
33	13x20	160	13x25	160	16x20	195	16x32	215	16x32	175
47	13x25	195	13x25	210	16x25	270	16x36	270	16x36	205
68	16x25	210	16x25	250	16x32	280	18x36	310	18x36	230

Case size φ DXL(mm)

Ripple current (mA rms) at 105°C, 120Hz