



SQ Series

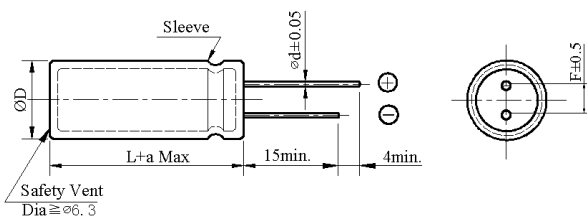
- Counter-plan product for safety
- Load life 5,000 hours at 105°C



◆ SPECIFICATIONS

Item	Performance Characteristics			
Category Temperature Range	-25 ~ +105°C			
Working Voltage Range	160 ~ 450Vdc			
Capacitance Range	22 ~ 680 μF			
Capacitance Tolerance	±20% (at 25°C and 120Hz)			
Dissipation Factor (tanδ) (at 25°C, 120Hz)	Rated Voltage (V)	160 ~ 250	400 ~ 450	
	tanδ(Max)	0.12	0.15	
Leakage Current	I=0.02CV or 3000 μA whichever is smaller I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) . Impress the rated voltage for 2 minutes			
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V)	160~250	400	420 ~ 450
	Z(-25°C)/Z(+20°C)	3	5	6
Endurance	The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 5,000 hours at 105°C.			
	Capacitance change	≒ ±20% of the initial value		
	Dissipation factor(tanδ)	≒ 200% of the specified value		
	Leakage current	≒ specified value		
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 1,000 hours at 105°C without voltage applied.			
	Capacitance change	≒ ±20% of the initial value		
	Dissipation factor(tanδ)	≒ 200% of the specified value		
	Leakage current	≒ 200% of the specified value		
Others	Conforms to JIS-C-5101-4 (1998), characteristic W			

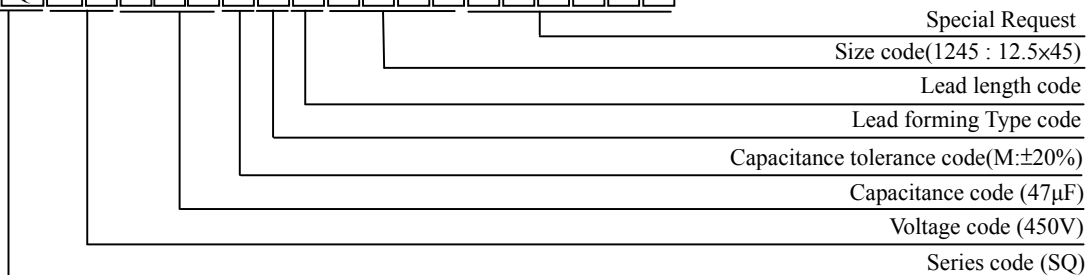
◆ DIMENSIONS (mm)



ΦD	10	12.5 L < 35	12.5 L ≥ 35	16	18
ΦD	ΦD + 0.5 Max				
Φd	0.6	0.6	0.8	0.8	0.8
F	5.0	5.0		7.5	7.5
a	L + 1.5 Max	≤ 35 L+1.5Max ≥ 40 L+2.0 Max		L + 1.5 Max	

◆ PART NUMBER SYSTEM(Example : 450V 47μF)

S Q 2 W 4 7 0 M N N 1 2 4 5





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◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz

uF \ Vdc	160		200		220		250	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
68					10×35	410	10×40	425
82			10×35	450	10×40	465	10×45	485
100	10×30	425	10×40	485	10×45	520	12.5×35	550
120	10×35	510	10×45	545	10×50	590	12.5×40	575
					12.5×35	560		
150	10×40	590	12.5×35	630	12.5×40	645	12.5×50	655
	12.5×30	570						
180	10×50	655	12.5×45	725	12.5×50	740	16×35.5	770
	12.5×35	640						
220	12.5×40	770	12.5×50	880	16×35.5	900	16×40	965
	16×25	735	16×31.5	865			18×31.5	950
270	12.5×45	880	16×40	890	16×40	960	16×50	1120
	16×30	860	18×30	875	18×31.5	935	18×40	1070
330	12.5×50	945	16×45	1180	16×50	1240	18×45	1350
	16×35.5	930	18×35.5	1250	18×40	1280		
	18×30	920						
470	18×35.5	1240	18×45	1410	18×50	1440		
560	18×40	1375	18×50	1520				
680	18×45	1480						

uF \ Vdc	400		420		450	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
22			10×30	220	10×35	235
27	10×30	265	10×35	270	10×40	290
33	10×35	280	10×40	305	10×45	315
39	10×40	315	10×45	325	10×50	350
					12.5×40	335
47	10×45	350	10×50	370	12.5×45	405
	12.5×35	340	12.5×40	360		
56	12.5×40	385	12.5×45	405	12.5×50	470
68	12.5×45	465	12.5×50	490	16×40	590
			16×35.5	485		
82	12.5×50	555	16×40	590	16×45	650
	16×35.5	545			18×35.5	630
100	16×40	630	16×45	695	16×50	770
			18×35.5	680	18×40	750
120	16×45	760	18×40	775	18×45	835
	18×35.5	735				
150	18×40	870	18×45	930	18×50	980
180	18×45	980	18×50	1070		

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Frequency (Hz)				
	50/60	120	1K	10K	100K
160 ~ 250	0.80	1.00	1.20	1.30	1.40
400 ~ 450	0.80	1.00	1.15	1.25	1.35