

FEATURES

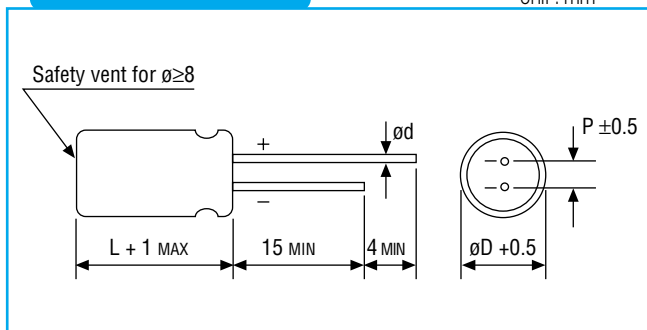
1. The SS series is employing etched foils for higher gain effect.
2. Designed for use in VTRs, car radios, car stereos, micro-cassette tape recorders, pocket calculators and watches.

SPECIFICATIONS

Item	Performance Characteristics																								
Operating Temperature Range	-40 to +85°C																								
Rated Working Voltage Range	4 to 50V																								
Nominal Capacitance Range	0.1 to 470μF																								
Capacitance Tolerance	± 20% (120Hz, +20°C)																								
Leakage Current	$I \leq 0.01CV$ or $3(\mu A)$ whichever is greater measured after 2 minutes application of rated working voltage at +20°C																								
Dissipation Factor $\tan \delta$ (120Hz, +20°C)	<table border="1"> <thead> <tr> <th>Working voltage [V]</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>$\tan \delta$ (max.)</td> <td>0.35</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table>	Working voltage [V]	4	6.3	10	16	25	35	50	$\tan \delta$ (max.)	0.35	0.24	0.20	0.16	0.14	0.12	0.10								
Working voltage [V]	4	6.3	10	16	25	35	50																		
$\tan \delta$ (max.)	0.35	0.24	0.20	0.16	0.14	0.12	0.10																		
Low Temperature Characteristics	Impedance ratio max. at 120Hz <table border="1"> <thead> <tr> <th>Working voltage [V]</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Z-25°C/ Z+20°C</td> <td>6</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/ Z+20°C</td> <td>12</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Working voltage [V]	4	6.3	10	16	25	35	50	Z-25°C/ Z+20°C	6	4	3	2	2	2	2	Z-40°C/ Z+20°C	12	8	6	4	4	3	3
Working voltage [V]	4	6.3	10	16	25	35	50																		
Z-25°C/ Z+20°C	6	4	3	2	2	2	2																		
Z-40°C/ Z+20°C	12	8	6	4	4	3	3																		
High Temperature Loading	<table border="0"> <tr> <td>Test conditions</td> <td></td> <td>Post test requirements at +20°C</td> </tr> <tr> <td>Duration : 2000 hours</td> <td></td> <td>Leakage current : ≤ Initial specified value</td> </tr> <tr> <td>Ambient temperature : +85°C</td> <td></td> <td>Capacitance change : ≤ ±20% of initial measured value</td> </tr> <tr> <td>Applied voltage : Rated DC working voltage</td> <td></td> <td>$\tan \delta$: ≤ 200% of initial specified value</td> </tr> </table>	Test conditions		Post test requirements at +20°C	Duration : 2000 hours		Leakage current : ≤ Initial specified value	Ambient temperature : +85°C		Capacitance change : ≤ ±20% of initial measured value	Applied voltage : Rated DC working voltage		$\tan \delta$: ≤ 200% of initial specified value												
Test conditions		Post test requirements at +20°C																							
Duration : 2000 hours		Leakage current : ≤ Initial specified value																							
Ambient temperature : +85°C		Capacitance change : ≤ ±20% of initial measured value																							
Applied voltage : Rated DC working voltage		$\tan \delta$: ≤ 200% of initial specified value																							
Shelf Life	<table border="0"> <tr> <td>Test conditions</td> <td></td> <td>Post test requirements at +20°C</td> </tr> <tr> <td>Duration : 1000 hours</td> <td></td> <td>Same limits for high temperature loading.</td> </tr> <tr> <td>Ambient temperature : +85°C</td> <td></td> <td></td> </tr> <tr> <td>Applied voltage : (None)</td> <td></td> <td></td> </tr> </table>	Test conditions		Post test requirements at +20°C	Duration : 1000 hours		Same limits for high temperature loading.	Ambient temperature : +85°C			Applied voltage : (None)														
Test conditions		Post test requirements at +20°C																							
Duration : 1000 hours		Same limits for high temperature loading.																							
Ambient temperature : +85°C																									
Applied voltage : (None)																									
Other	JIS C - 5141 JIS C - 5102																								

CASE SIZE TABLE

Unit : mm



D ϕ	4	5	6.3	8
P	1.5	2.0	2.5	3.5
d ϕ	0.45	0.45	0.45	0.5

DIMENSIONS

ø D x L (mm)

Voltage		6.3V		10V		16V	
Cap. (μF)	Code	0J		1A		1C	
0.1	104						
0.22	224						
0.33	334						
0.47	474						
1	105						
2.2	225						
3.3	335						
4.7	475						
10	106					4x7	28
22	226	4x7	34	4x7	35	4x7	39
33	336	4x7	40	4x7	43	(4) 5x7	(45) 59
47	476	4x7	48	(4) 5x7	(45) 59	5x7	65
100	157	5x7	78	(5) 6.3x7	(74) 87	6.3x7	98
220	227	6.3x7	120	(6.3) 8x7	(138) 145	8x9	186
330	337	8x7 (9)	180 (204)	8x7	201		
470	477	8x7 (9)	215 (243)			Case Size	Allowable ripple

ø D x L (mm)

Voltage		25V		35V		50V	
Cap. (μF)	Code	1E		1V		1H	
0.1	104					4x7	1.0
0.22	224					4x7	2.3
0.33	334					4x7	3.5
0.47	474					4x7	5.0
1	105					4x7	10
2.2	225					4x7	19
3.3	335					4x7	24
4.7	475			4x7	24	4x7	28
10	106	4x7	28	4x7	31	5x7	38
22	226	5x7	48	5x7	52	6.3x7	58
33	336	5x7	58	6.3x7	65	8x7 (9)	75 (85)
47	476	6.3x7	71	8x7 (9)	85 (96)	8x9	101
100	107	8x7 (9)	115 (130)	8x9	141		
220	227					Case Size	Allowable ripple

Allowable Ripple (mA rms) at 85°C 120Hz