

## HC Series High Vibration, High Reliability

### Features

- ◆ The series has operation life of 4000 hours at 125°C wide operating temperature range, -55°C to +125°C
- ◆ Double cramping snap-in type
- ◆ Applications: For high reliability and high vibration (up to 30G) conditions
- ◆ RoHS compliance



Item	Performance Characteristics									
Operating Temperature Range	-55 to +125°C									
Rated Voltage Range	25 to 63 V.DC									
Capacitance Range	820~1800µF									
Capacitance Tolerance	-10%~ +30%(120Hz,+20°C)									
Leakage Current (+20°C,max.)	$I \leq 3\sqrt{CV}$ (µA) max After 5 minutes with rated working voltage applied.									
Dissipation Factor (tanδ, at 20°C, 120Hz)	Less than the value under table(%)									
	<table border="1"> <thead> <tr> <th>Working Voltage(VDC)</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>D.F.(%) max</td> <td>20</td> <td>15</td> <td>10</td> <td>10</td> </tr> </tbody> </table>	Working Voltage(VDC)	25	35	50	63	D.F.(%) max	20	15	10
Working Voltage(VDC)	25	35	50	63						
D.F.(%) max	20	15	10	10						
Low Temperature Characteristics (at 120Hz)	Impedance ratio max.									
	<table border="1"> <thead> <tr> <th>Working Voltage(VDC)</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> </tbody> </table>	Working Voltage(VDC)	25	35	50	63	Z-25°C/Z+20°C	4	4	4
Working Voltage(VDC)	25	35	50	63						
Z-25°C/Z+20°C	4	4	4	4						
Endurance	Test conditions Duration time : 4000h Ambient temperature : +125°C Applied voltage : Rated DC working voltage  After test requirements at +25°C Capacitance change : $\leq \pm 20\%$ of the initial measured value Dissipation factor : $\leq 200\%$ of the initial specified value Leakage current : $\leq$ the initial specified value									
Shelf Life	Test conditions Duration time : 1000h Ambient temperature : +125°C Applied voltage : None After test requirements at +20°C : Same limits as Endurance. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.									
Vibration resistance test	Referring to JIS-C-5101-1(2010), test Fc: Frequency range 10-2000-10[Hz], displacement amplitude max.2mm, acceleration max.30g, duration 3x2h.									

### Multiplier for Ripple Current vs. Frequency:

Frequency (Hz)	50/60	120	300	1K	$\geq 10K$
Coefficient	0.56	0.7	0.83	0.92	1

### Case Size

WV Vdc	Cap µF	Size mm	Rated Ripple Current (mArms/125°C, 100Khz)	Max ESR 20°C, 120Hz, mΩ
25	1800	20x30	4100	55
25	2200	20x35	4870	44
25	3300	20x40	5500	31
35	1200	20x30	3900	61
35	1500	20x35	5000	52
35	2200	20x40	5900	38

WV Vdc	Cap µF	Size mm	Rated Ripple Current (mArms/125°C, 100Khz)	Max ESR 20°C, 120Hz, mΩ
50	1200	20x35	4200	71
50	1500	20x40	4900	65
63	600	20x30	3740	99
63	820	20x35	4300	78
63	1000	20x40	5250	61

Please check with us about individual dimensions and other more information.