

THV SERIES

UPGRADE

125°C Low ESR, Lead Free Reflow Soldering.

◆FEATURES

- Load Life : 125°C 2000~3000 hours Low ESR.
- Lead free reflow soldering is available.
- Available for high density mounting.
- RoHS compliance.



◆SPECIFICATIONS

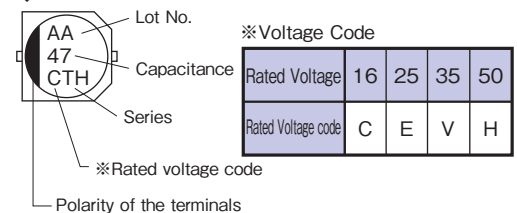
Items	Characteristics												
Category Temperature Range	-40~+125°C												
Rated Voltage Range	16~50V.DC												
Capacitance Tolerance	±20% (20°C, 120Hz)												
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=(μA) C=(μF) V=(V) Leakage Current Rated Capacitance Rated Voltage												
(tanδ) Dissipation Factor(MAX)	<table border="1"> <tr> <td>Rated Voltage</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.23</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td></td> </tr> </table>	Rated Voltage	16	25	35	50	(20°C, 120Hz)	tanδ	0.23	0.18	0.16	0.14	
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Endurance	<p>XAfter life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±30% of the initial value.</td> <td>Case Size</td> <td>(hrs) LifeTime</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 300% of the specified value.</td> <td>φD=6.3</td> <td>2000</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> <td>φD≥8</td> <td>3000</td> </tr> </table>	Capacitance Change	Within ±30% of the initial value.	Case Size	(hrs) LifeTime	Dissipation Factor	Not more than 300% of the specified value.	φD=6.3	2000	Leakage Current	Not more than the specified value.	φD≥8	3000
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated Voltage</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td></td> </tr> </table>	Rated Voltage	16	25	35	50	(120Hz)	Z(-40°C)/Z(20°C)	4	4	3	3	
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Z(-40°C)/Z(20°C)	4	4	3	3									

◆DIMENSIONS

(mm)

φD	L	A1	B1	C	W1	P
6.3	6.1	6.6	6.6	2.7	0.5~0.8	1.8
6.3	8	6.6	6.6	2.7	0.5~0.8	1.8
8	10.5	8.3	8.3	2.9	0.8~1.1	3.1
10	10.5	10.3	10.3	3.2	0.8~1.1	4.5

◆MARKING



◆MULTIPLIER FOR RIPPLE CURRENT
Frequency Coefficient

		(Hz) Frequency	120	1k	10k	100k≤
Coefficient	22~33μF	0.45	0.75	0.90	1.00	
	47~100μF	0.50	0.80	0.95	1.00	
	220~330μF	0.60	0.85	0.95	1.00	

◆STANDARD SIZE Size φD×L(mm), Ripple Current (mA r.m.s./125°C, 100kHz), ESR(Ω MAX/100kHz)

WV (V.DC)	Cap (μF)	Size (φD×L)	Ripple	ESR	
				20°C	-40°C
16 (1C)	33	6.3×6.1	70	1	15
	47	6.3×8	200	0.7	10
	100	6.3×8	200	0.7	10
	100	8×10.5	300	0.3	3
	220	8×10.5	300	0.3	3
	220	10×10.5	500	0.2	2
	330	10×10.5	500	0.2	2

WV (V.DC)	Cap (μF)	Size (φD×L)	Ripple	ESR	
				20°C	-40°C
25 (1E)	33	6.3×6.1	70	1	15
	47	6.3×8	200	0.7	10
	100	8×10.5	300	0.3	3
	220	8×10.5	300	0.3	3
	220	10×10.5	500	0.2	2
	330	10×10.5	500	0.2	2

WV (V.DC)	Cap (μF)	Size (φD×L)	Ripple	ESR	
				20°C	-40°C
35 (1V)	22	6.3×8	200	0.7	10
	33	6.3×6.1	70	1	15
	33	6.3×8	200	0.7	10
	47	6.3×8	200	0.7	10
	47	8×10.5	300	0.3	3
	100	8×10.5	300	0.3	3
	100	10×10.5	500	0.2	2
	220	10×10.5	500	0.2	2
50 (1H)	22	6.3×8	150	0.9	13
	33	6.3×8	150	0.9	13
	33	8×10.5	250	0.36	3.6
	47	8×10.5	250	0.36	3.6
	47	10×10.5	350	0.25	2.5
	100	10×10.5	350	0.25	2.5

◆PART NUMBER

