

THV SERIES

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℃																
Rated Voltage Range	16~50V.DC																
Capacitance Tolerance	±20% (20℃,120Hz)																
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(V)																
Dissipation Factor(MAX) (tanδ)	<table><tr><td>Rated Voltage (V)</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>tanδ</td><td>0.23</td><td>0.18</td><td>0.16</td><td>0.14</td></tr></table> (20℃,120Hz)					Rated Voltage (V)	16	25	35	50	tanδ	0.23	0.18	0.16	0.14		
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Endurance	After life test with rated ripple current at conditions stated in the teble below at 125℃, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td>Within ±30% of the initial value.</td><td>Case Size</td><td>LifeTime (hrs)</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	LifeTime (hrs)	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><tr><td>Rated Voltage (V)</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>4</td><td>4</td><td>3</td><td>3</td></tr></table> (120Hz)					Rated Voltage (V)	16	25	35	50	Z(-40℃)/Z(20℃)	4	4	3	3		
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Z(-40℃)/Z(20℃)	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

Lot No.
Capacitance
Series
Rated voltage code
Negative

※Voltage Code				
Rated Voltage (V)	16	25	35	50
Rated Voltage code	C	E	V	H

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency (Hz)	120	1k	10k	100k≤
10~33μF	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)

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	4.5
	220	8×10.5	300	0.3	4.5
	220	10×10.5	500	0.2	3
	330	10×10.5	500	0.2	3

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	4.5
	220	8×10.5	300	0.3	4.5
	220	10×10.5	500	0.2	3
	330	10×10.5	500	0.2	3

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	4.5
	100	8×10.5	300	0.3	4.5
	100	10×10.5	500	0.2	3
	220	10×10.5	500	0.2	3
	10	6.3×6.1	70	1	15
	22	6.3×8	150	0.9	10
50 (1H)	33	6.3×8	150	0.9	10
	33	8×10.5	250	0.36	4.5
	47	8×10.5	250	0.36	4.5
	47	10×10.5	350	0.25	3
	100	10×10.5	350	0.25	3

◆PART NUMBER

□□□	THV	□□□□□	M	□□□	D×L
Rated Voltage	Series	Capacitance	Capacitance Tolerance	Option	Case Size