

## THU Series

### HIGH VOLTAGE, LONG LIFE SMD ELECTROLYTIC CAPACITOR

Operating with wide temperature range -40~+105°C

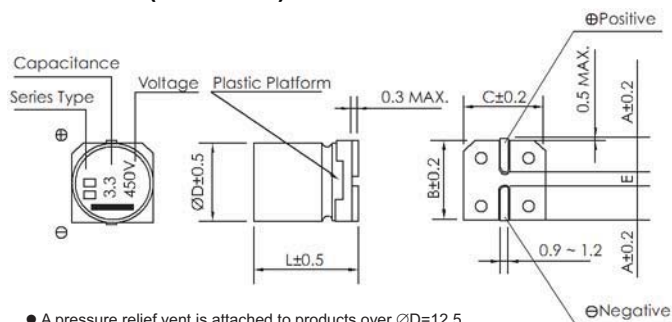
Load life of 5000 hours

Comply with the RoHS directive

#### SPECIFICATIONS

Items	Characteristics		
Operation Temperature Range	-40 ~ +105°C		
Voltage Range	160 ~ 450V		
Capacitance Range	3.3 ~ 47μF		
Capacitance Tolerance	±20% at 120Hz, 20°C		
Leakage Current	Leakage current ≤0.04CV + 100μA, whichever is greater (after 2 minutes application of rated voltage)		
Dissipation Factor (tan δ)	Measurement frequency : 120Hz, Temperature : 20°C		
	Rated Voltage (V)	160 ~ 250	400, 500
	tan δ (max.)	0.15	0.20
Stability at Low Temperature	Measurement frequency : 120Hz		
	Rated Voltage (V)	160 ~ 250	400, 500
	Impedance Ratio Z(-25°C) / Z(20°C)	3	6
	Z(-40°C) / Z(20°C)	6	10
Load Life	After 5000 hours application of the rated voltage at 105°C, they meet the characteristics listed below.		
	Capacitance Change	Within ±20% of initial value	
	Dissipation Factor	200% or less of initial specified value	
	Leakage Current	initial specified value or less	
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics listed above.		
Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics listed below.		
	Capacitance Change	Within ±10% of initial value	
	Dissipation Factor	initial specified value or less	
	Leakage Current	initial specified value or less	
Marking	Black print on the case top.		

#### DRAWING (Unit: mm)



• A pressure relief vent is attached to products over  $\varnothing D=12.5$

#### DIMENSIONS (Unit: mm)

∅D x L	8 x 10.5	10 x 13.5	12.5 x 13.5	12.5 x 16
A	3.0	3.3	4.9	4.9
B	8.4	10.4	13.0	13.0
C	8.4	10.4	13.0	13.0
E ± 0.2	3.1	4.7	4.7	4.7
L	10.5	13.5	13.5	16.0



**DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT**

WV Code	μF	160	200	250	400	450
		2C	2D	2E	2G	2W
2.2	225				8 × 10.5	25
3.3	335					10 × 13.5
4.7	475			10 × 13.5	65	10 × 13.5
10	106		10 × 13.5	80	10 × 13.5	105
22	226	12.5 × 13.5	85	12.5 × 13.5	110	12.5 × 16
33	336	12.5 × 13.5	95	12.5 × 16	220	
47	476	12.5 × 16	260			

•Case size ØD×L(mm), ripple current (mA rms) at 105°C, 120Hz

**FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT**

Frequency	50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient	0.80	1.00	1.25	1.40	1.60

**HOW TO ORDER**

<u>THU</u>	<u>A</u>	<u>106</u>	<u>M</u>	<u>0200</u>	<u>1013</u>	<u>R</u>	<u>000</u>
<b>Type</b>	<b>Material Code</b>	<b>Capacitance Code</b>	<b>Tolerance</b>	<b>Rated Voltage</b>	<b>Size Code</b>	<b>Package Code</b>	<b>Suffix Indicate Special</b>
THU	A: Aluminum Cap	pF Code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow) 106 = 10uF 107 = 100uF	M: +/-20%	Code 0200: 200VDC <b>For DC Voltage</b> 0006: 6.3VDC 0035: 35VDC 0050: 50VDC 0100: 100VDC	<b>Size for THU</b> 0607: Size 6.3x7.7mm 1010: Size 10x10.5mm 1013: Size 10x13.5mm	R: Tape & Reel	000: Indicating Standard