



DATA SHEET

CHIP 5000Hours Load Life 105°C

Serie: I15009

Voltage: 50Volt Range: 220 μ F

Impedance: no specified Dimension 12,5x13,5mm

Ripple Current: 340mA

CHIP 5000Hours Load Life 105°C

Serie No.: I15009

Customer:

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	03.06.2014
APPD:	Schumi			FINISH	Jamy		Sheet No.	1 from 7	

EDCON-COMPONENTS



Designed for surface mounting on high density circuit board

Emboss carrier tape packing systems is available for automatic insertion



Technical Informations

Voltage:	50Volt
Range:	220µF
Dimension; D x L mm	12,5x13,5m
Impedance (Ω) max., at20°C, 100hKz	no specified
Ripple Current (mA rms) at 105°C, 100kHz	340mA

Ordering Code			
500	Voltage		
221	Range		
D=	I	L=	5

Operating Temperatur Range of -55°C ~ +105°C
Load Life of 3000~5000 hours

Leakage current max.	Ø4 ~ Ø10mm	I= 0,01CV or 3µA whichever is greater (after 2 minutes)
	Ø12,5 ~ Ø16mm	I= 0,03CV or 4µA whichever is greater (after 1 minutes)

Capacitance tolerance ± 20% at 120Hz, 20°C

Dissipation factor max. (at 120Hz, 20°C)	WV		6,3	10	16	25	35	50	63	100				
	Tanδ	Ø4 ~ Ø10mm	0,28	0,24	0,20	0,16	0,13	0,12	0,12	0,12				
		Ø12,5 ~ Ø16mm	0,38	0,34	0,30	0,26	0,22	0,18	0,18	0,18				

Low Temperatur characteristics (Impedance ratio at 120Hz)	WV		6,3	10	16	25	35	50	63	100				
	Ø4 ~ Ø10mm	Z-25°C / Z+20°C	3	3	2	2	2	2	2	2				
		Z-55°C / Z+20°C	8	5	4	3	3	3	3	3				
	Ø12,5 ~ Ø16mm	Z-25°C / Z+20°C	5	4	3	2	2	2	2	2				
Z-55°C / Z+20°C		12	10	8	5	4	3	3	3					

Load Life (after application of the rated voltage for 5000hrs at 125°C	Leakage current	Less than specified value
	Capacitance Change	Within ±30% of initial value
	Tanδ	Less than 300% of specified value
	Ø4 ~ Ø6,3x5,8 , Ø8x6,2 ~ Ø6,3: 3000hours	

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Shell life (at 105°C) After 1000hours no load test, leakage current, capacitance and tan δ are same as load life value.

Resistance to soldering heat	After reflow soldering and resistance at room temperature, they meet the characteristics requirements listed at underside	
	Leakage current	Less than specified value
	Capacitance Change	Within $\pm 10\%$ of initial value
	Tan δ	Less than specified value

Size	Capacitance μF	FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT				
		Frequency				
		50Hz	120Hz	300Hz	1KHz	10KHz \leq
$\varnothing 4 \sim \varnothing 10\text{mm}$		0,70	1,00	1,17	1,36	1,50
$\varnothing 12,5 \sim \varnothing 16\text{mm}$	~68	0,75	1,00	1,35	1,57	2,00
	100 ~470	0,80	1,00	1,23	1,34	1,50
	680 ~3300	0,85	1,00	1,10	1,13	1,15

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Technical Drawing

Dimension of Size $\varnothing 8 \times 10,5 \sim 16 \text{mm}$



Dimension of Size $\varnothing 4 \sim 8 \times 6,2 \text{mm}$



D x L	$\varnothing 4 \times 5,8$	$\varnothing 5 \times 5,8$	$\varnothing 6,3 \times 5,8$	$\varnothing 6,3 \times 7,7$	$\varnothing 8 \times 6,2$	$\varnothing 8 \times 10,5$	$\varnothing 10 \times 10,5$	$\varnothing 10 \times 13,5$	$\varnothing 12,5 \times 13,5$	$\varnothing 12,5 \times 16$	$\varnothing 16 \times 16,5$
A	2,0	2,2	2,6	2,6	3,4	3,0	3,3	3,3	4,9	4,9	5,8
B	4,3	5,3	6,6	6,6	8,4	8,4	10,4	10,4	13,0	13,0	17,0
C	4,3	5,3	6,6	6,6	8,4	8,4	10,4	10,4	13,0	13,0	17,0
E +/-0.2	1,0	1,3	1,9	1,9	2,3	3,1	4,7	4,7	4,7	4,7	6,4
L	5,8	5,8	5,8	7,7	6,2	10,5	10,5	13,5	13,5	16,0	16,5

*1 Voltage mark (6V) represents 6,3V for $\varnothing 4 \sim 10 \text{mm}$

*3 (L +/- 0.5) is applicable to $\varnothing 8 \times 10,5 \sim \varnothing 10 \text{mm}$

*2 (L +/- 0.3) is applicable to $\varnothing 6,3 \sim 7,7$ and $\varnothing 8 + 6,2 \text{mm}$

*4 (L +/- 1.0) is applicable to $\varnothing 12,5 \sim \varnothing 16 \text{mm}$

RE. Date code and seriew type -1st digit for Year 2nd digit for Quarter, 4 quarter codes in one year area 1,4,7,0

3rd character for Serie S

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www.edcon-components.com

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Ordering Informations

Serie	Voltage Code	Tolerance Code	Range Code	Size Code D	Size Code L	Special function	ROHS	Packing Code		
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I15009	500	M	221	I	5	XX	R	TR		
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look table	M= ±20%	Ordering Code Range	Look table Code D	Look table Code L	XX= No function	R= ROHS Conform	TR= Tape Reel Packing		
Voltage Code						N= NON ROHS Conform			
							BU= Bulk-Ware		

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Soldering Profile Curve

Classification Reflow Profile (JEDEC J-STD-020C)



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