



DATA SHEET

CHIP Extra Lower Impedance Life 105°C

Serie: I15011

Voltage: 50Volt

Range:

47 μ F

Impedance: 0,68 Ω

Dimension

8x6,2mm

Ripple Current: 185mA

CHIP Extra Lower Impedance
Life 105°C

Serie No.: I15011

Customer:

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

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Designed for surface mounting on high density circuit board

Emboss carrier tape packing systems is available for automatic insertion



Technical Informations

Voltage:	50Volt
Range:	47µF
Dimension; D x L mm	8x6,2mm
Impedance (Ω) max., at 20°C, 100Khz	0,68Ω
Ripple Current (mA rms) at 105°C, 100kHz	185mA

Ordering Code			
500	Voltage		
470	Range		
D=	E	L=	2

Impedance 40~60% less than I15008 Series
Extra Lower Impedance with Operating Temperatur Range of -55°C ~ +105°C

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							
	Tanδ	Ø4 ~ Ø10mm	0,22	0,19	0,16	0,14	0,12	0,12							
		Ø12,5 ~ Ø16mm	0,26	0,22	0,18	0,16	0,14	0,12							

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

Load Life (after application of the rated voltage for 3000hrs at 105°C	Leakage current	Less than specified value
	Capacitance Change	Within ±25% of initial value
	Tanδ	Less than 200% of specified value
	Ø4 ~ Ø6,3x5,8: 1000hours , Ø6,3x7,7 ~ Ø8,0: 2000hours	

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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
$\varnothing 4 \sim \varnothing 10\text{mm}$	4,7~ 68	0,35	0,50	0,64	0,83	1,00
	100~1500	0,40	0,55	0,70	0,85	1,00
$\varnothing 12,5 \sim \varnothing 16\text{mm}$	~680	0,45	0,65	0,80	0,90	1,00
	1000 ~4700	0,65	0,85	0,95	1,00	1,00

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Technical Drawing

Dimension of Size \varnothing 8x10,5 ~ 16mm



Dimension of Size \varnothing 4~ 8x6,2mm



D x L	\varnothing 4 x 5,8	\varnothing 5 x 5,8	\varnothing 6,3 x 5,8	\varnothing 6,3 x 7,7	\varnothing 8 x 6,2	\varnothing 8 x 10,5	\varnothing 10 x 10,5	\varnothing 10 x 13,5	\varnothing 12,5 x 13,5	\varnothing 12,5 x 16	\varnothing 16 x 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 ~ 10mm

*3 (L +/- 0.5) is applicable to \varnothing 8x10,5 ~ \varnothing 10mm

*2 (L +/- 0.3) is applicable to \varnothing 6,3 ~ 7.7 and \varnothing 8 + 6,2mm

*4 (L +/- 1.0) is applicable to \varnothing 12,5 ~ \varnothing 16mm

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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Voltage Ordering Code	Code
4,0	4V0
6,3	6V3
10	100
16	160
25	250
35	350
50	500
63	630
80	800
100	101

Diameter ordering Code D	Code
3mm	3
4mm	A
5mm	B
6,3mm	C
8mm	E
10mm	G
12,5mm	I
16mm	K

Height ordering Code L	Code
4mm	A
5,4mm	0
5,8mm	1
6,2mm	2
7,7mm	3
10,5mm	4
13,5mm	5
16mm	6
16,5mm	7

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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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I15011	500	M	470	E	2	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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