



DATA SHEET

HIP High Reliability 125°C and 5000hrs for Automotive Equipmer

Serie: I15007

Voltage: 50Volt

Range: 100 μ F

Impedance: 0,23 Ω

Dimension 12,5x13,5mm

Ripple Current: 550mA

**CHIP High Reliability 125°C and
5000hrs for Automotive
Equipment**

Serie No.: **I15007**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	03.06.2014	Customer:
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:	100µF
Dimension; D x L mm	12,5x13,5mm
Impedance (Ω) max., at20°C, 100kHz	0,23Ω
Ripple Current (mA rms) at 105°C, 100kHz	550mA

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

Operating Temperatur Range of -40°C ~ +125°C
Load Life of 1000~5000 hours

Leakage current max.	WV ≤ 100	I= 0,03CV or 4µA whichever is greater (after 2 minutes)													
	WV ≥ 100	I= 0,04CV or 100µA whichever is greater (after 2 minutes)													
Capacitance tolerance	± 20% at 120Hz, 20°C														
Dissipation factor max. (at 120Hz, 20°C)	WV		10	16	25	35	50	63	100	160	200	250	400	450	
	Tanδ	Ø6,3 ~ Ø10mm	0,24	0,20	0,16	0,14	0,14	0,18	0,18						
		Ø12,5 ~ Ø16mm	0,22	0,18	0,16	0,14	0,12	0,14	0,10	0,20	0,20	0,20	0,20	0,20	0,20

Low Temperatur characteristics (Impedance ratio at 120Hz)	WV		10	16	25	35	50	63	100	160	200	250	400	450
	Ø6,3 ~ Ø10mm	Z-25°C / Z+20°C	4	3	2	2	2	2	2					
		Z-40°C / Z+20°C	10	8	6	4	4	4	4					
	Ø12,5 ~ Ø16mm	Z-25°C / Z+20°C	4	3	2	2	2	2	2	3	3	3	6	6
Z-40°C / Z+20°C		8	6	4	3	3	3	3	6	6	6	10	10	

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
	Ø8x10,5 ~ Ø10 (10~100V) 2000hours , Ø8x6,2 ~ Ø6,3: 1000hours	
	Ø 12,5 ~ Ø16 (160~450V) : 2000hours	

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Shell life (at 125°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

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT					
Capacitance μF	Frequency				
	50Hz	120Hz	1KHz	10KHz	100KHz \leq
10 ~100	0,35	0,40	0,75	0,90	1,00
220 ~470	0,35	0,50	0,85	0,94	1,00
680 ~2200	0,40	0,60	0,85	0,95	1,00

coefficient	Frequency					
	50Hz	120Hz	300Hz	1KHz	10KHz	100KHz \leq
160~450V	0,75	1,00	1,25	1,50	1,75	1,80

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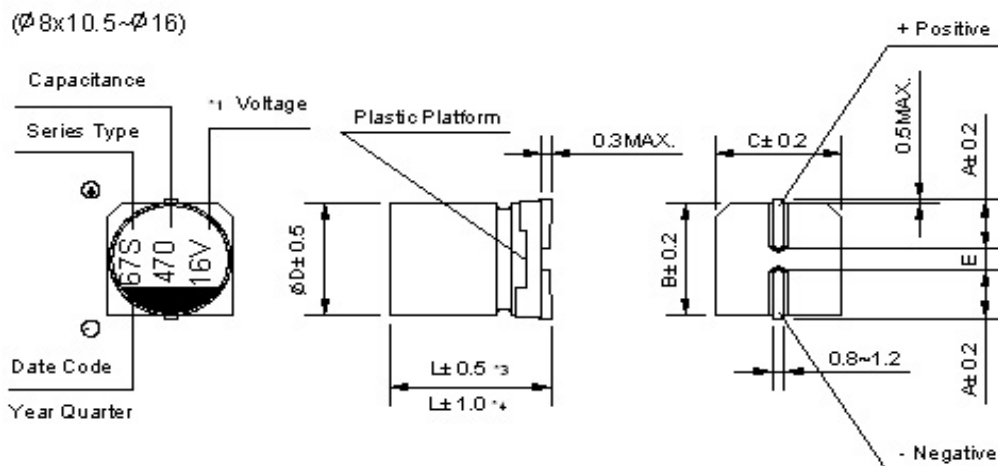
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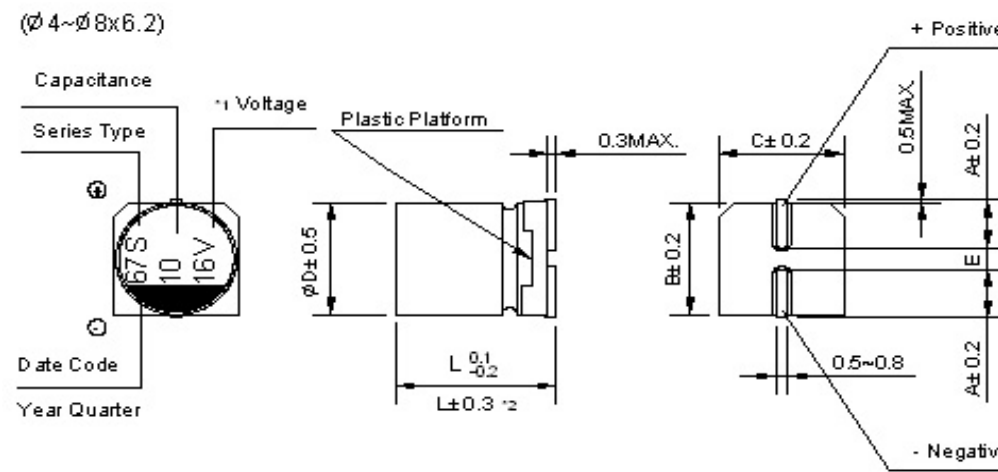


Technical Drawing

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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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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I15007	500	M	101	I	5	XX	R	TR		
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look table Voltage Code	M= ±20%	Ordering Code Range	Look table Code D	Look table Code L	XX= No function	R= ROHS Conform N= NON ROHS Conform	TR= Tape Reel Packing BU= Bulk-Ware		
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Soldering Profile Curve

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



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