

**SURFACE MOUNT**

**TANTALUM CHIP - LOW ESR SHJL**

SECTION 1

The SHJL surface mount products have inherently low ESR (equivalent series resistance) and is capable of higher ripple current, handling, producing lower ripple voltages, less power and heat dissipation than standard product for the most efficient use of circuit power, and has been particularly designed for typical power supply environments.



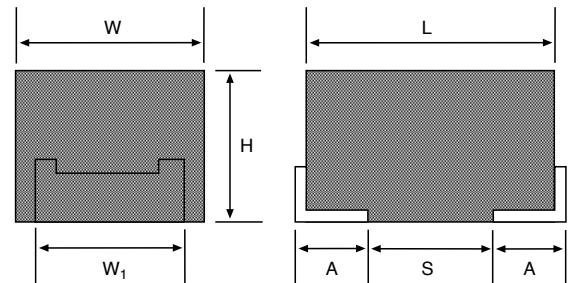
**SHJL SELECTION GUIDE**

Capacitance $\mu\text{F}$	6.3V	10V	16V	20V	25V	35V	50V
	3.3						C
4.7					C		D
6.8						D/E	E
10				C		D/E	E
15		C			D	D/E	
22		C		D	D/E	E	
33			C/D	D/E	D/E	E	
47		D	C/D	D/E	D/E		
68	D	C/D	D	D/E	E		
100	C/D	C/D/E	D/E	E			
150	D/E	D/E	D/E				
220	D/E	D/E	E				
330	D/E	D/E					
470	D/E						

**SPECIFICATION**

Technical Data:	All technical data relates to an ambient temperature of +25 °C
Capacitance Range:	3.3 $\mu\text{F}$ to 470 $\mu\text{F}$
Capacitance Tolerance:	$\pm 20\%$ ; $\pm 10\%$
Environmental Classification:	55/125/56 (IEC 68-2)
Dissipation Factor:	$\leq 0.06$ for E case for CR>10 $\mu\text{F}$ $\leq 0.08$ for E case with CR $\geq 100\mu\text{F}$

**OUTLINE DRAWING**



Code	EIA Code	L $\pm 0.2$	W $+0.2$	H $\pm 0.2$	W1 $\pm 0.2$	A $\pm 0.3$	S Min.
C	6032	6.0	3.2	2.6	2.2	1.3	2.9
D	7343	7.3	4.3	2.9	2.4	1.3	4.4
E	7343H	7.3	4.3	4.1	2.4	1.3	4.4

W1 dimension applies to the termination width for A dimensional area only. Pad Stand-off is 0.1 $\pm 0.1$ .

\*A, B case available on request.

**ORDERING INFORMATION**

SHJL	C	10	25	K	XXXX
Range	Case size	$\mu\text{F}$ value	Voltage	Tolerance K=10% M=20%	ESR OHMIC value in m $\Omega$

**RATINGS & PART NUMBER REFERENCE**

Dubilier Part No.	Rated Voltage	Capacitance uF	Case Size	DF Max	DCL Max	ESR Max MSL @ 100kHz	100kHz Ripple Current (mA) Rating
SHJLC1006.3	6.3	100	C	0.08	6.3	150	0.86
SHJLD686.3	6.3	68	D	0.06	4.3	175	0.93
SHJLD1006.3	6.3	100	D	0.08	6.3	150	1.10
SHJLD1506.3	6.3	150	D	0.08	9.5	150	1.22
SHJLD2206.3	6.3	220	D	0.08	14.0	100	1.22
SHJLD3306.3	6.3	330	D	0.12	21.0	100	1.22
SHJLD4706.3	6.3	470	D	0.15	30.0	150	1.00
SHJLE1506.3	6.3	150	E	0.08	9.5	100	1.28
SHJLE2206.3	6.3	220	E	0.08	14.0	100	1.28
SHJLE3306.3	6.3	330	E	0.08	21.0	100	1.28
SHJLE4706.3	6.3	470	E	0.12	30.0	100	1.28
SHJLC1510	10	15	C	0.06	1.5	400	0.52
SHJLC2210	10	22	C	0.06	2.2	375	0.54
SHJLC6810	10	68	C	0.06	6.8	250	0.66
SHJLC10010	10	100	C	0.08	10.0	250	0.66
SHJLD4710	10	47	D	0.06	4.7	200	0.87
SHJLD6810	10	68	D	0.06	6.8	150	1.00
SHJLD10010	10	100	D	0.08	10.0	100	1.22
SHJLD15010	10	150	D	0.08	15.0	100	1.22
SHJLD22010	10	220	D	0.10	22.0	100	1.22
SHJLD33010	10	330	D	0.12	33.0	150	1.00
SHJLE10010	10	100	E	0.08	10.0	100	1.28
SHJLE15010	10	150	E	0.08	15.0	100	1.28
SHJLE22010	10	220	E	0.08	22.0	100	1.28
SHJLE33010	10	330	E	0.10	33.0	100	1.28
SHJLC3316	16	33	C	0.06	5.3	300	0.61
SHJLC4716	16	47	C	0.06	7.5	350	0.61
SHJLD3316	16	33	D	0.06	5.3	175	0.87
SHJLD4716	16	47	D	0.06	7.5	150	0.93
SHJLD6816	16	68	D	0.06	11.0	150	1.00
SHJLD10016	16	100	D	0.08	16.0	125	1.00
SHJLD15016	16	150	D	0.10	24.0	150	1.00
SHJLE10016	16	100	E	0.08	16.0	100	1.28
SHJLE15016	16	150	E	0.08	24.0	100	1.28
SHJLE22016	16	220	E	0.10	35.0	100	1.28
SHJLC1020	20	10	C	0.06	2.0	400	0.49
SHJLD2220	20	22	D	0.06	4.4	225	0.87
SHJLD3320	20	33	D	0.06	6.6	200	0.87
SHJLD4720	20	47	D	0.06	9.4	175	0.77
SHJLD6820	20	68	D	0.06	14.0	200	0.71
SHJLE3320	20	33	E	0.06	6.6	200	0.91
SHJLE4720	20	47	E	0.06	9.4	150	1.05
SHJLE6820	20	68	E	0.06	14.0	150	0.91
SHJLE10020	20	100	E	0.08	20.0	150	1.05
SHJLC4.725	25	4.7	C	0.06	1.2	575	0.46
SHJLD1525	25	15	D	0.06	3.8	275	0.81
SHJLD2225	25	22	D	0.06	5.5	230	0.81
SHJLD3325	25	33	D	0.06	8.3	230	0.81
SHJLD4725	25	47	D	0.06	12.0	250	0.77
SHJLE2225	25	22	E	0.06	5.5	230	0.85

For 10% tolerance, insert 'K' in (\*) above. For 20% tolerance, insert 'M' in (\*) above.

**RATINGS & PART NUMBER REFERENCE CONT...**

SHJLC3.335	35	3.3	C	0.06	1.2	550	0.45
SHJLD6.835	35	6.8	D	0.06	2.4	400	0.71
SHJLD1035	35	10	D	0.06	3.5	260	0.76
SHJLD1535	35	15	D	0.06	5.3	300	0.76
SHJLE6.835	35	6.8	E	0.06	2.4	300	0.74
SHJLE1035	35	10	E	0.06	3.5	260	0.80
SHJLE1535	35	15	E	0.06	5.3	225	0.80
SHJLE2235	35	22	E	0.06	7.7	275	0.80
SHJLE3335	35	33	E	0.06	12.0	260	0.80
SHJLD4.750	50	4.7	D	0.06	2.4	300	0.71
SHJLE6.850	50	6.8	E	0.06	3.4	300	0.74
SHJLE1050	50	10	E	0.06	5.0	300	0.74

For 10% tolerance, insert 'K' in (\*) above. For 20% tolerance, insert 'M' in (\*) above.

Note: Voltage ratings are minimum values. We reserve the right to supply higher voltage ratings in the same case size, to the same reliability standards.

Other case size and ESR values available by request