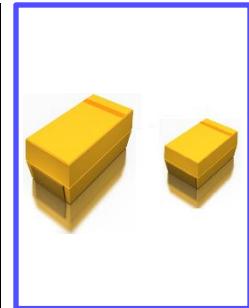
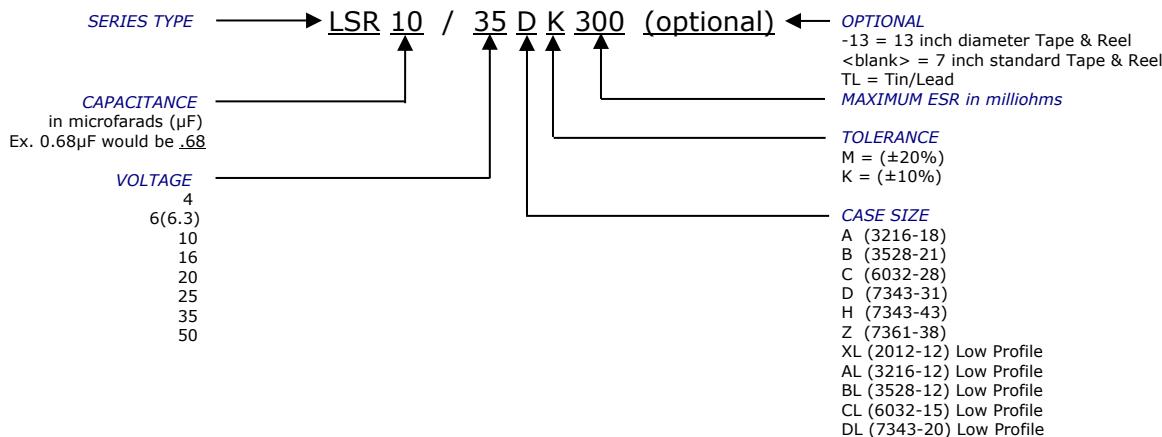


#### FEATURES

- Very Low Equivalent Series Resistance (ESR), Ideal for Power Supplies
- High ripple and current capability
- Meets or Exceeds EIA 535 BAAC and IECQ standards (QC300801/US001, IS-28)
- Pre-conditioned, surge current tested for maximum robustness
- Capacitance range: 0.1µF to 1500µF
- Voltage range: 4 to 50 WVDC
- Down sized, extended range values
- Low profile sizes: XL, AL, BL, CL, DL
- Operating Temperature range -55°C to +125°C
- Precision molded case with flat surfaces for vacuum pick-up
- Laser marking and bold videcon – readable polarity
- Compliant terminations
- Glue pad on underside for bonding to circuit board prior to soldering
- Encapsulant material satisfies the UL 94 V0 flammability classification
- MSL (moisture sensitivity level) per IPC/Jedec J-STD-020B is level 1



#### PART NUMBERING GUIDE



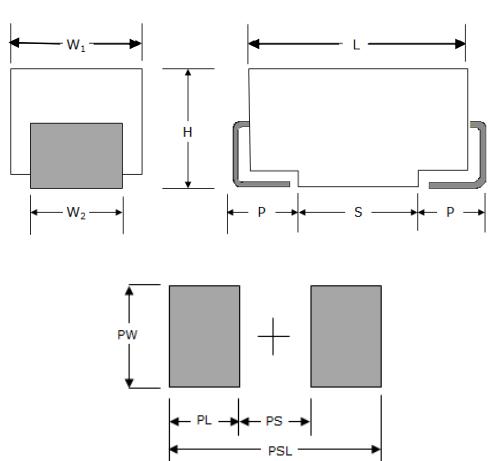
#### ELECTRICAL SPECIFICATION

Technical Data:	All technical data relate to an ambient temperature of +25°C								
Capacitance Range	0.10µF to 1500µF								
Capacitance Tolerance	±10% (K); ±20% (M)								
Rated Voltage DC (V <sub>R</sub> )	≤+85°C	4	6.3	10	16	20	25	35	50
Category Voltage DC (V <sub>C</sub> )	≤+125°C	2.7	4	7	10	13	17	23	33
Surge Voltage (V <sub>S</sub> )	≤+85°C	5.2	8	13	20	26	32	46	65
Surge Voltage (V <sub>S</sub> )	≤+125°C	3.2	5	8	13	16	20	28	40
Temperature Range	-55°C to +125°C with 2/3 V <sub>r</sub> (linear derating) required for operation above +85°C								
Reliability	Level M (1% per 1000 hours at rated voltage (V <sub>R</sub> ), rated temperature (85°C) and 0.1Ω/volt circuit impedance.								
Qualifications	Fixed Tantalum Specifications: EIA 525BAAC and IECQ standards (QC300801/US001, IS-28) Solder-ability: Sn Plated Terminations – meets requirements of IEC 68 2.20 test Ta and MIL-STD=202, Method 208 MSL (moisture sensitivity level): Level 1 of IPC/Jedec J-STD-020B								

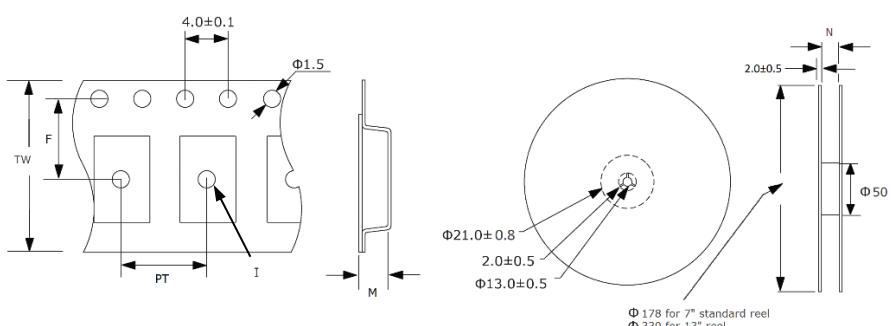
#### CASE SIZE CROSS REFERENCE: CAPACITANCE AND VOLTAGE RATING (Rated Voltage DC@ 85°C)

Cap (µF)	4V	6.3V	10V	16V	20V	25V	35V	50V
<b>0.15</b>	A	A	A	A	A	A	A	A
<b>0.22</b>	A	A	A	A	A	A	A	A
<b>0.33</b>	A	A	A	A	A	A	A	A
<b>0.47</b>	A, B, C	A, B, C	A, B, C	A, B, C	A, B, C	A, B, C	A, B, C	C
<b>0.68</b>	A	A	A	A	A	A	A	A
<b>1.0</b>	A, AL, B, BL, C, XL	A, AL, B, BL, C, XL	A, AL, B, BL, C, XL	A, AL, B, BL, C, XL	A, AL, B, BL, C, XL	A, B, C, XL	A, B, C	C
<b>1.5</b>	A, C	A, C	A, C	A, C	A, C	A, C	A, C	C
<b>2.2</b>	A, B, BL, C, D, XL	A, B, BL, C, D, XL	A, B, BL, C, D	A, B, BL, C, D	A, B, C, D	A, B, C, D	A, B, C, D	D
<b>3.3</b>	A, B, BL, C, D	A, B, BL, C, D	A, B, BL, C, D	A, B, C, D	A, B, C, D	B, C, D	B, C, D	D
<b>4.7</b>	A, AL, B, C, D, XL	A, AL, B, C, D, XL	A, B, C, D, XL	A, B, C, D	A, B, C, D	A, B, C, D	B, C, D	D
<b>6.8</b>	A, B, BL, C, D	A, B, BL, C, D	A, B, BL, C, D	A, B, C, D	A, B, C, D	B, C, D	C, D	D
<b>10.0</b>	A, AL, B, BL, C, CL, D, DL, H, XL	A, AL, B, BL, C, CL, D, DL, H, XL	A, AL, B, BL, C, CL, D, DL, H	A, B, BL, C, CL, D, DL, H	B, C, CL, D, DL, H	B, C, CL, D, DL, H	D, DL, H	D, H
<b>15.0</b>	A, B, BL, C, D, DL, H, Z	A, B, BL, C, D, DL, H, Z	A, B, BL, C, D, DL, H, Z	B, C, D, DL, H, Z	B, C, D, DL, H, Z	C, D, DL, H, Z	C, D, DL, H, Z	H, Z
<b>22.0</b>	A, AL, B, BL, C, CL, D, DL, H	A, AL, B, BL, C, CL, D, DL, H	A, B, BL, C, CL, D, DL, H	B, C, CL, D, DL, H	B, C, CL, D, DL, H	C, D, DL, H	D, DL, H	H
<b>33.0</b>	A, B, BL, C, CL, D, DL, H, Z	A, B, BL, C, CL, D, DL, H, Z	A, B, C, CL, D, DL, H, Z	B, C, CL, D, DL, H, Z	C, D, DL, H, Z	D, DL, H, Z	D, H, Z	
<b>47.0</b>	A, B, BL, C, CL, D, DL, H, Z	A, B, BL, C, CL, D, DL, H, Z	B, C, CL, D, DL, H, Z	C, CL, D, DL, H, Z	D, H, Z	D, H, Z	H, Z	
<b>68.0</b>	B, C, CL, D, DL, H, Z	B, C, CL, D, DL, H, Z	B, C, CL, D, DL, H, Z	C, D, DL, H, Z	D, H, Z	H, Z	Z	
<b>100.0</b>	B, C, CL, D, DL, H, Z	B, C, CL, D, DL, H, Z	B, C, CL, D, DL, H, Z	C, D, DL, H, Z	D, H, Z	H, Z		
<b>150.0</b>	C, D, DL, H, Z	C, D, DL, H, Z	D, DL, H, Z	D, DL, H, Z	H, Z	Z		
<b>220.0</b>	C, D, DL, H, Z	C, D, DL, H, Z	D, DL, H, Z	H, Z				
<b>330.0</b>	C, D, DL, H, Z	C, D, DL, H, Z	D, H, Z	H				
<b>470.0</b>	D, DL, H, Z	D, DL, H, Z	H, Z					
<b>680.0</b>	D, H, Z	H, Z						
<b>1000.0</b>	D, H, Z	H, Z						
<b>1500.0</b>	H, Z							

#### OUTLINE DRAWING AND PAD PRINT



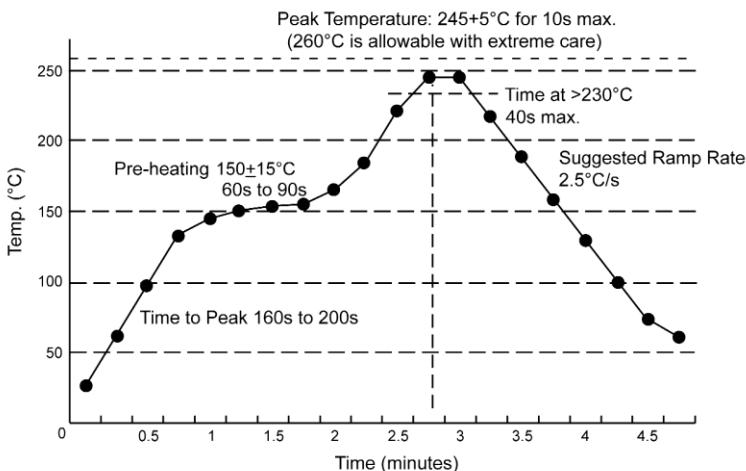
#### TAPE AND REEL DIMENSION



(3) 0805 Footprint Compatible  
(4) 1206 Footprint Compatible  
NOTE: Dimensions in millimeters (mm)

NEMCO Size	EIA Size	L ±0.2	W <sub>1</sub> ± 0.2	H (MAX)	W <sub>2</sub> ± 0.1	P ±0.3	S Min.	PSL	PL	PS	PW	TW ±0.3	PT (Pitch)	M (MAX)	I	N ±1	F ±0.05
A(4)	3216-18	3.2	1.6	1.6	1.2	0.8	1.10	3.8	1.4	1.0	1.8	8	4	2.3	1.0	9.5	3.5
B	3528-21	3.5	2.8	1.9	2.2	0.8	1.40	4.0	1.4	1.2	2.8	8	4	2.6	1.0	9.5	3.5
C	6032-28	6.0	3.2	2.6	2.2	1.3	2.90	6.5	2.0	2.5	2.8	12	8	3.3	1.5	13	5.5
D	7343-31	7.3	4.3	2.9	2.4	1.3	4.40	8.0	2.0	4.0	3.0	12	8	3.6	1.5	13	5.5
H	7343-43	7.3	4.3	4.1	2.4	1.3	4.40	8.0	2.0	4.0	3.0	12	8	4.8	1.5	13	5.5
Z	7361-38	7.3	6.1	3.45	3.1	1.4	4.40	8.0	2.0	4.0	3.7	12	8	4.8	1.5	13	5.5
XL(3)	2012-12	2.05	1.3	1.2	1.2	0.5	0.85	2.7	1.0	0.8	1.6	8	4	1.9	1.0	9.5	3.5
AL(4)	3216-12	3.2	1.6	1.2	1.2	0.8	1.10	3.8	1.4	1.0	1.8	8	4	1.9	1.0	9.5	3.5
BL	3528-12	3.5	2.8	1.2	2.2	0.8	1.40	4.0	1.4	1.2	2.8	8	4	1.9	1.0	9.5	3.5
CL	6032-15	6.0	3.2	1.5	2.2	1.3	2.90	6.5	2.0	2.5	2.8	8	4	1.9	1.0	9.5	3.5
DL	7343-20	7.3	4.3	2.0	2.4	1.3	4.40	8.0	2.0	4.0	3.0	8	4	1.7	1.0	9.5	3.5

#### REFLOW PROFILE

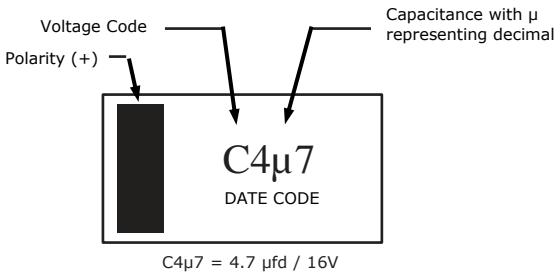


Tantalum capacitors are lead-free system compatible system components, meeting the requirements of J-STD-020 standard. Maximum peak temperature 260°C for 10 seconds maximum, 3 reflow cycles.

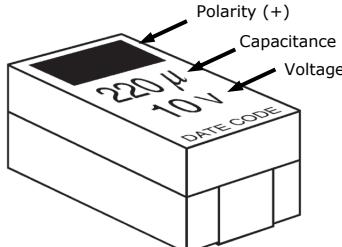
There are several important general soldering considerations for tantalum capacitors.

- Soldering temperature and time should be the minimum for a good connection.
- Recommended soldering profiles are designed to insure that the temperature of the internal construction of the capacitors does not exceed +220°C.
- Positioning capacitors near components radiating heat such as power transistors should be avoided.
- Allow for an increase to ESR ratings of 1.25 x catalog limit post PCB assembly.

#### Case Sizes: XL, A, AL, B, BL



#### Case Sizes: C, CL, D, DL, H, Z



Voltage VDC	4V	6.3V	10V	16V	20V	25V	35V	50V
Voltage Code	G	J	A	C	D	E	V	T

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

##### 4 V DC @ 85°C (2.7 V DC @ 125°C)

Capacitance ( $\mu\text{F}$ )	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu\text{A}$ ) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (milliamps)		
						25°C	85°C	125°C
10.0	XL	3000	LSR10 / 4XL - 3000	0.5	6	135	122	54
47.0	A	500	LSR47 / 4A - 500	1.9	8	387	349	155
100.0	B	200	LSR100 / 4B - 200	4.0	8	652	587	261
100.0	B	250	LSR100 / 4B - 250	4.0	8	583	525	233
100.0	B	350	LSR100 / 4B - 350	4.0	8	493	444	197
100.0	B	500	LSR100 / 4B - 500	4.0	8	412	371	165
100.0	CL	100	LSR100 / 4CL - 100	4.0	6	949	854	379
150.0	B	250	LSR150 / 4B - 250	6.0	10	583	525	233
150.0	C	70	LSR150 / 4C - 70	6.0	6	1254	1128	501
150.0	C	80	LSR150 / 4C - 80	6.0	6	1173	1055	469
220.0	D	40	LSR220 / 4D - 40	8.8	8	1936	1743	775
220.0	D	50	LSR220 / 4D - 50	8.8	8	1732	1559	693
220.0	D	100	LSR220 / 4D - 100	8.8	8	1225	1102	490
220.0	DL	40	LSR220 / 4DL - 40	8.8	8	1768	1591	707
220.0	DL	50	LSR220 / 4DL - 50	8.8	8	1581	1423	632
220.0	DL	75	LSR220 / 4DL - 75	8.8	8	1291	1162	516
330.0	C	100	LSR330 / 4C - 100	13.2	8	1049	944	420
330.0	D	25	LSR330 / 4D - 25	13.2	8	3194	2874	1277
330.0	D	35	LSR330 / 4D - 35	13.2	8	2699	2429	1080
330.0	D	45	LSR330 / 4D - 45	13.2	8	1826	1643	730
330.0	D	100	LSR330 / 4D - 100	13.2	8	1225	1102	490
470.0	D	25	LSR470 / 4D - 25	18.8	8	3194	2874	1277
470.0	D	35	LSR470 / 4D - 35	18.8	8	2699	2429	1080
470.0	D	45	LSR470 / 4D - 45	18.8	12	1826	1643	730
470.0	D	100	LSR470 / 4D - 100	18.8	12	1225	1102	490
470.0	H	35	LSR470 / 4H - 35	18.8	10	2171	1954	868
470.0	H	45	LSR470 / 4H - 45	18.8	10	1915	1723	766
470.0	H	100	LSR470 / 4H - 100	18.8	10	1285	1156	514
680.0	D	25	LSR680 / 4D - 25	27.2	8	3194	2874	1277
680.0	D	45	LSR680 / 4D - 45	27.2	14	1915	1643	730
680.0	D	60	LSR680 / 4D - 60	27.2	14	1581	1423	632
680.0	D	100	LSR680 / 4D - 100	27.2	14	1225	1102	490
680.0	H	18	LSR680 / 4H - 18	27.0	6	3873	3486	1549
680.0	H	23	LSR680 / 4H - 23	27.0	6	3426	3084	1370
680.0	H	40	LSR680 / 4H - 40	27.2	14	2031	1828	812
680.0	H	60	LSR680 / 4H - 60	27.2	14	1658	1492	663
680.0	H	100	LSR680 / 4H - 100	27.2	14	1285	1156	514
1000.0	D	25	LSR1000 / 4D - 25	40.0	8	3194	2874	1277
1000.0	D	45	LSR1000 / 4D - 45	40.0	8	2380	2142	952
1000.0	H	18	LSR1000 / 4H - 18	40.0	6	3873	3486	1549
1000.0	H	23	LSR1000 / 4H - 23	40.0	6	3426	3084	1370
1000.0	H	23	LSR1000 / 4H - 23	40.0	6	3426	3084	1370
1000.0	H	40	LSR1000 / 4H - 40	40.0	14	2031	1828	812
1000.0	H	60	LSR1000 / 4H - 60	40.0	14	1658	1492	663
1000.0	Z	18	LSR1000 / 4Z - 18	40.0	6	3979	3581	1592
1000.0	Z	25	LSR1000 / 4Z - 25	40.0	16	3162	2846	1265
1000.0	Z	35	LSR1000 / 4Z - 35	40.0	16	2673	2405	1069
1000.0	Z	40	LSR1000 / 4Z - 40	40.0	16	2500	2250	1000
1000.0	Z	50	LSR1000 / 4Z - 50	40.0	16	2236	2012	894
1500.0	H	15	LSR1500 / 4H - 15	40.0	6	4243	3818	1697
1500.0	H	50	LSR1500 / 4H - 50	60.0	30	1817	1635	727
1500.0	H	75	LSR1500 / 4H - 75	60.0	30	1483	1335	593
1500.0	Z	50	LSR1500 / 4Z - 50	60.0	30	2236	2012	894
1500.0	Z	75	LSR1500 / 4Z - 75	60.0	30	1826	1643	730

##### 6.3 V DC @ 85°C (4 V DC @ 125°C)

Capacitance ( $\mu\text{F}$ )	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu\text{A}$ ) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (milliamps)		
						25°C	85°C	125°C
2.2	XL	7000	LSR2.2 / 6XL - 7000	0.5	6	89	80	35
4.7	AL	4000	LSR4.7 / 6AL - 4000	0.5	6	127	115	51
6.8	A	1800	LSR6.8 / 6A - 1800	0.5	6	204	184	82
10.0	A	1500	LSR10 / 6A - 1500	0.6	6	224	201	89
10.0	BL	1000	LSR10 / 6BL - 1000	0.6	6	283	255	113
10.0	XL	1000	LSR10 / 6XL - 1000	0.6	8	235	211	94
10.0	XL	1500	LSR10 / 6XL - 1500	0.6	8	191	172	77
10.0	XL	3000	LSR10 / 6XL - 3000	0.6	8	135	122	54
15.0	A	700	LSR15 / 6A - 700	0.9	6	327	295	131
15.0	A	1500	LSR15 / 6A - 1500	0.9	6	224	200	89
22.0	A	500	LSR22 / 6A - 500	1.4	6	387	349	155
22.0	A	900	LSR22 / 6A - 900	1.4	6	289	260	115
22.0	AL	900	LSR22 / 6AL - 900	1.4	10	269	242	107
22.0	B	375	LSR22 / 6B - 375	1.4	6	476	428	190
22.0	B	600	LSR22 / 6B - 600	1.4	6	376	339	151
33.0	A	600	LSR33 / 6A - 600	2.1	8	353	318	141
33.0	B	250	LSR33 / 6B - 250	2.1	6	583	525	233
33.0	B	350	LSR33 / 6B - 350	2.1	6	493	444	197
33.0	B	450	LSR33 / 6B - 450	2.1	6	435	391	174
33.0	B	600	LSR33 / 6B - 600	2.1	6	376	339	151

CONT'D ON NEXT PAGE

Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

##### 6.3 V DC @ 85°C (4 V DC @ 125°C) CONT'D

Capacitance ( $\mu\text{F}$ )	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu\text{A}$ ) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (millamps)		
						25°C	85°C	125°C
33.0	BL	800	LSR33 / 6BL	800	2.1	10	316	285
47.0	A	800	LSR47 / 6A	800	2.8	10	306	276
47.0	B	250	LSR47 / 6B	250	3.0	6	583	525
47.0	B	350	LSR47 / 6B	350	3.0	6	493	444
47.0	B	500	LSR47 / 6B	500	3.0	6	412	371
47.0	BL	1200	LSR47 / 6BL	1200	2.8	10	258	232
47.0	C	300	LSR47 / 6C	300	3.0	6	606	545
68.0	B	250	LSR68 / 6B	250	4.0	8	583	525
68.0	B	350	LSR68 / 6B	350	4.0	8	493	444
68.0	B	500	LSR68 / 6B	500	4.0	6	412	371
68.0	C	150	LSR68 / 6C	150	4.3	6	856	771
68.0	C	200	LSR68 / 6C	200	4.3	6	742	667
68.0	CL	110	LSR68 / 6CL	110	4.3	6	905	814
68.0	CL	125	LSR68 / 6CL	125	4.3	6	849	764
68.0	CL	250	LSR68 / 6CL	250	4.3	6	600	540
100.0	B	250	LSR100 / 6B	250	6.3	10	583	525
100.0	B	400	LSR100 / 6B	400	6.3	10	461	415
100.0	C	75	LSR100 / 6C	75	6.3	6	1211	1090
100.0	C	150	LSR100 / 6C	150	6.3	6	856	771
100.0	CL	100	LSR100 / 6CL	100	6.3	6	949	854
100.0	CL	150	LSR100 / 6CL	150	6.3	6	775	697
100.0	DL	100	LSR100 / 6DL	100	6.3	6	1118	1006
150.0	C	50	LSR150 / 6C	50	9.5	6	1483	1335
150.0	C	90	LSR150 / 6C	90	9.5	6	1106	995
150.0	C	150	LSR150 / 6C	150	9.5	6	856	771
150.0	C	200	LSR150 / 6C	200	9.5	6	742	667
150.0	C	250	LSR150 / 6C	250	9.5	6	663	597
150.0	D	50	LSR150 / 6D	50	9.5	6	1732	1559
150.0	D	125	LSR150 / 6D	125	9.5	6	1095	986
150.0	DL	40	LSR150 / 6DL	40	9.5	6	1768	1591
150.0	DL	50	LSR150 / 6DL	50	9.5	6	1581	1423
220.0	C	70	LSR220 / 6C	70	13.9	8	1254	1128
220.0	C	100	LSR220 / 6C	100	13.9	8	1049	944
220.0	C	125	LSR220 / 6C	125	13.9	8	938	844
220.0	C	250	LSR220 / 6C	250	13.9	8	663	597
220.0	D	50	LSR220 / 6D	50	13.9	8	1732	1559
220.0	D	100	LSR220 / 6D	100	13.9	8	1225	1102
220.0	D	125	LSR220 / 6D	125	13.9	8	1095	986
220.0	DL	30	LSR220 / 6DL	30	13.2	6	2646	2381
220.0	DL	100	LSR220 / 6DL	100	13.9	8	1118	1006
220.0	DL	150	LSR220 / 6DL	150	13.9	10	913	822
220.0	H	100	LSR220 / 6H	100	13.9	8	1285	1156
330.0	C	80	LSR330 / 6C	80	19.8	12	1173	1055
330.0	C	100	LSR330 / 6C	100	19.8	12	1049	944
330.0	D	25	LSR330 / 6D	25	19.8	8	3194	2874
330.0	D	35	LSR330 / 6D	35	19.8	8	2699	2429
330.0	D	45	LSR330 / 6D	45	20.8	8	1826	1643
330.0	D	50	LSR330 / 6D	50	20.8	8	1732	1559
330.0	D	70	LSR330 / 6D	70	20.8	8	1464	1317
330.0	D	100	LSR330 / 6D	100	20.8	8	1225	1102
330.0	DL	100	LSR330 / 6DL	100	20.8	12	1118	1006
330.0	DL	150	LSR330 / 6DL	150	20.8	12	913	822
330.0	H	50	LSR330 / 6H	50	20.8	8	1817	1635
330.0	H	100	LSR330 / 6H	100	20.8	8	1285	1156
330.0	H	125	LSR330 / 6H	125	20.8	8	1149	1034
330.0	H	150	LSR330 / 6H	150	20.8	8	1049	944
330.0	Z	100	LSR330 / 6Z	100	20.8	8	1581	1423
470.0	D	45	LSR470 / 6D	45	28.0	12	1826	1643
470.0	D	60	LSR470 / 6D	60	28.0	12	1581	1423
470.0	D	100	LSR470 / 6D	100	28.0	12	1225	1102
470.0	D	200	LSR470 / 6D	200	28.0	12	866	779
470.0	DL	150	LSR470 / 6DL	150	28.2	20	913	822
470.0	H	18	LSR470 / 6H	18	28.0	6	3873	3486
470.0	H	23	LSR470 / 6H	23	28.0	6	3426	3084
470.0	H	30	LSR470 / 6H	30	28.0	6	3000	2700
470.0	H	45	LSR470 / 6H	45	28.0	10	1915	1723
470.0	H	50	LSR470 / 6H	50	28.0	10	1817	1635
470.0	H	60	LSR470 / 6H	60	28.0	10	1658	1492
470.0	H	100	LSR470 / 6H	100	28.0	10	1285	1156

Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

10 V DC @ 85°C (7 V DC @ 125°C)

Capacitance ( $\mu$ F)	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu$ A) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (millamps)		
						25°C	85°C	125°C
1.0	XL	9000	LSR1 / 10XL - 9000	0.5	4	78	70	31
2.2	A	1800	LSR2.2 / 10A - 1800	0.5	6	204	184	82
3.3	BL	1500	LSR3.3 / 10BL - 1500	0.5	6	231	208	92
4.7	A	1400	LSR4.7 / 10A - 1400	0.5	6	231	208	93
4.7	XL	3000	LSR4.7 / 10XL - 3000	0.5	6	135	122	54
4.7	XL	5000	LSR4.7 / 10XL - 5000	0.5	6	105	94	42
6.8	A	1800	LSR6.8 / 10A - 1800	0.7	6	204	184	82
6.8	BL	1800	LSR6.8 / 10BL - 1800	0.7	6	211	190	84
10.0	A	900	LSR10 / 10A - 900	1.0	6	289	260	115
10.0	A	1800	LSR10 / 10A - 1800	1.0	6	204	184	82
10.0	AL	900	LSR10 / 10BL - 900	1.0	8	269	242	107
10.0	BL	1000	LSR10 / 10BL - 1000	1.0	6	283	255	113
10.0	BL	2000	LSR10 / 10BL - 2000	1.0	6	200	180	80
15.0	A	1000	LSR15 / 10A - 1000	1.5	6	274	246	110
15.0	B	450	LSR15 / 10B - 450	1.5	6	435	391	174
15.0	B	600	LSR15 / 10B - 600	1.5	6	376	339	151
15.0	BL	1200	LSR15 / 10BL - 1200	1.5	8	258	232	103
22.0	A	900	LSR22 / 10A - 900	2.2	8	289	260	115
22.0	B	400	LSR22 / 10B - 400	2.2	6	461	415	184
22.0	B	500	LSR22 / 10B - 500	2.2	6	412	371	165
22.0	B	700	LSR22 / 10B - 700	2.2	6	348	314	139
22.0	C	300	LSR22 / 10C - 300	2.2	6	606	545	242
33.0	A	700	LSR33 / 10A - 700	3.3	8	327	295	131
33.0	B	250	LSR33 / 10B - 250	3.3	6	583	525	233
33.0	B	425	LSR33 / 10B - 425	3.3	6	447	402	179
33.0	B	500	LSR33 / 10B - 500	3.3	6	412	371	165
33.0	B	650	LSR33 / 10B - 650	3.3	6	362	325	145
33.0	C	150	LSR33 / 10C - 150	3.3	6	856	771	343
33.0	C	375	LSR33 / 10C - 375	3.3	6	542	487	217
33.0	C	500	LSR33 / 10C - 500	3.3	6	469	422	188
47.0	B	250	LSR47 / 10B - 250	4.7	8	583	525	233
47.0	B	350	LSR47 / 10B - 350	4.7	8	493	444	197
47.0	B	500	LSR47 / 10B - 500	4.7	8	412	371	165
47.0	B	650	LSR47 / 10B - 650	4.7	8	362	325	145
47.0	C	200	LSR47 / 10C - 200	4.7	6	742	667	297
47.0	C	350	LSR47 / 10C - 350	4.7	6	561	505	224
47.0	CL	125	LSR47 / 10CL - 125	4.7	6	849	764	339
47.0	CL	150	LSR47 / 10CL - 150	4.7	6	775	697	310
47.0	CL	250	LSR47 / 10CL - 250	4.7	6	600	540	240
47.0	D	100	LSR47 / 10D - 100	4.7	6	1225	1102	490
68.0	B	600	LSR68 / 10B - 600	6.8	8	376	339	151
68.0	C	80	LSR68 / 10C - 80	6.8	6	1173	1055	469
68.0	C	100	LSR68 / 10C - 100	6.8	6	1049	944	420
68.0	C	200	LSR68 / 10C - 200	6.8	6	742	667	297
68.0	C	300	LSR68 / 10C - 300	6.8	6	606	545	242
68.0	CL	100	LSR68 / 10CL - 100	6.8	6	949	854	379
68.0	CL	150	LSR68 / 10CL - 150	6.8	6	775	697	310
68.0	D	100	LSR68 / 10D - 100	6.8	6	1225	1102	490
68.0	D	150	LSR68 / 10D - 150	6.8	6	1000	900	400
68.0	DL	200	LSR68 / 10DL - 200	6.8	6	791	712	316
100.0	B	400	LSR100 / 10B - 400	10.0	8	461	415	184
100.0	C	75	LSR100 / 10C - 75	10.0	8	1211	1090	484
100.0	C	100	LSR100 / 10C - 100	10.0	8	1049	944	420
100.0	C	150	LSR100 / 10C - 150	10.0	8	856	771	343
100.0	C	200	LSR100 / 10C - 200	10.0	8	742	667	297
100.0	CL	150	LSR100 / 10CL - 150	10.0	6	775	697	310
100.0	D	50	LSR100 / 10D - 50	10.0	6	1732	1559	693
100.0	D	65	LSR100 / 10D - 65	10.0	6	1519	1367	608
100.0	D	80	LSR100 / 10D - 80	10.0	6	1369	1232	548
100.0	D	100	LSR100 / 10D - 100	10.0	6	1225	1102	490
100.0	D	125	LSR100 / 10D - 125	10.0	6	1095	986	438
100.0	D	150	LSR100 / 10D - 150	10.0	6	1000	900	400
100.0	DL	45	LSR100 / 10DL - 45	10.0	8	2160	1944	864
100.0	DL	100	LSR100 / 10DL - 100	10.0	6	1118	1006	447
100.0	DL	150	LSR100 / 10DL - 150	10.0	6	913	822	365
100.0	DL	200	LSR100 / 10DL - 200	10.0	6	791	712	316
100.0	H	125	LSR100 / 10H - 125	10.0	6	1149	1034	460
150.0	D	50	LSR150 / 10D - 50	15.0	8	1732	1559	693
150.0	D	85	LSR150 / 10D - 85	15.0	8	1328	1196	531
150.0	D	100	LSR150 / 10D - 100	15.0	8	1225	1102	490
150.0	DL	45	LSR150 / 10DL - 45	15.0	8	2160	1944	864
150.0	DL	100	LSR150 / 10DL - 100	15.0	6	1118	1006	447
150.0	DL	150	LSR150 / 10DL - 150	15.0	6	913	822	365
150.0	DL	200	LSR150 / 10DL - 200	15.0	6	791	712	316
150.0	H	100	LSR150 / 10H - 100	15.0	8	1285	1156	514
220.0	D	35	LSR220 / 10D - 35	22.0	8	2699	2429	1080
220.0	D	50	LSR220 / 10D - 50	22.0	8	1732	1559	693
220.0	D	100	LSR220 / 10D - 100	22.0	8	1225	1102	490
220.0	D	150	LSR220 / 10D - 150	22.0	8	1000	900	400
220.0	DL	100	LSR220 / 10DL - 100	22.0	10	1118	1006	447
220.0	DL	150	LSR220 / 10DL - 150	22.0	10	913	822	365

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Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

10 V DC @ 85°C (7 V DC @ 125°C) CONT'D								
Capacitance ( $\mu$ F)	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu$ A) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (millamps)		
						25°C	85°C	125°C
220.0	DL	200	LSR220 / 10DL - 200	22.0	10	791	712	316
220.0	H	50	LSR220 / 10H - 50	22.0	8	1817	1635	727
220.0	H	60	LSR220 / 10H - 60	22.0	8	1658	1492	663
220.0	H	70	LSR220 / 10H - 70	22.0	8	1535	1382	614
220.0	H	100	LSR220 / 10H - 100	22.0	8	1285	1156	514
220.0	H	125	LSR220 / 10H - 125	22.0	8	1149	1034	460
220.0	H	150	LSR220 / 10H - 150	22.0	8	1049	944	420
330.0	D	35	LSR330 / 10D - 35	33.0	8	2699	2429	1080
330.0	D	50	LSR330 / 10D - 50	33.0	8	1732	1559	693
330.0	D	65	LSR330 / 10D - 65	33.0	8	1519	1367	608
330.0	D	100	LSR330 / 10D - 100	33.0	8	1225	1102	490
330.0	D	150	LSR330 / 10D - 150	33.0	8	1000	900	400
330.0	H	23	LSR330 / 10H - 23	33.0	6	3426	3084	1370
330.0	H	35	LSR330 / 10H - 35	33.0	6	2777	2500	1111
330.0	H	40	LSR330 / 10H - 40	33.0	8	2031	1828	812
330.0	H	50	LSR330 / 10H - 50	33.0	8	1817	1635	727
330.0	H	60	LSR330 / 10H - 60	33.0	8	1658	1492	663
330.0	H	100	LSR330 / 10H - 100	33.0	8	1285	1156	514
330.0	Z	40	LSR330 / 10Z - 40	33.0	10	2500	2250	1000
330.0	Z	60	LSR330 / 10Z - 60	33.0	10	2041	1837	816
330.0	Z	100	LSR330 / 10Z - 100	33.0	10	1581	1423	632
470.0	H	23	LSR470 / 10H - 23	47.0	6	3426	3084	1370
470.0	H	30	LSR470 / 10H - 30	47.0	6	3000	2700	1200
470.0	H	45	LSR470 / 10H - 45	47.0	10	1915	1723	766
470.0	H	50	LSR470 / 10H - 50	47.0	10	1817	1635	727
470.0	H	60	LSR470 / 10H - 60	47.0	10	1658	1492	663
470.0	H	100	LSR470 / 10H - 100	47.0	10	1285	1156	514
470.0	Z	200	LSR470 / 10H - 200	47.0	10	908	817	363
470.0	Z	40	LSR470 / 10Z - 40	47.0	10	2500	2250	1000
470.0	Z	60	LSR470 / 10Z - 60	47.0	10	2041	1837	816
470.0	Z	100	LSR470 / 10Z - 100	47.0	10	1581	1423	632

16 V DC @ 85°C (10 V DC @ 125°C)								
Capacitance ( $\mu$ F)	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu$ A) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (millamps)		
						25°C	85°C	125°C
2.2	A	1800	LSR2.2 / 16A - 1800	0.5	6	204	183	82
2.2	A	3500	LSR2.2 / 16A - 3500	0.5	6	146	132	59
2.2	BL	2000	LSR2.2 / 16BL - 2000	0.5	6	200	180	80
3.3	A	3500	LSR3.3 / 16A - 3500	0.5	6	146	132	59
4.7	A	2000	LSR4.7 / 16A - 2000	0.8	6	194	174	77
4.7	B	800	LSR4.7 / 16B - 800	0.8	6	326	293	130
4.7	B	1500	LSR4.7 / 16B - 1500	0.8	6	238	214	95
6.8	A	1500	LSR6.8 / 16A - 1500	1.1	6	224	201	89
6.8	B	600	LSR6.8 / 16B - 600	1.1	6	376	339	151
6.8	B	1200	LSR6.8 / 16B - 1200	1.1	6	266	240	106
10.0	A	1000	LSR10 / 16A - 1000	1.6	6	274	246	110
10.0	B	500	LSR10 / 16B - 500	1.6	6	412	371	165
10.0	B	800	LSR10 / 16B - 800	1.6	6	326	293	130
10.0	C	500	LSR10 / 16C - 500	1.6	6	469	422	188
10.0	BL	800	LSR10 / 16BL - 800	1.6	8	316	285	126
10.0	BL	1000	LSR10 / 16BL - 1000	1.6	8	283	255	113
10.0	CL	500	LSR10 / 16CL - 500	1.6	6	424	382	170
10.0	CL	600	LSR10 / 16CL - 600	1.6	6	387	349	155
15.0	B	500	LSR15 / 16B - 500	2.4	6	412	371	165
15.0	B	800	LSR15 / 16B - 800	2.4	6	326	292	130
22.0	B	400	LSR22 / 16B - 400	3.5	6	461	415	184
22.0	B	600	LSR22 / 16B - 600	3.5	6	376	339	151
22.0	A	150	LSR22 / 16C - 150	3.5	6	856	771	343
22.0	A	250	LSR22 / 16C - 250	3.5	6	663	597	265
22.0	A	300	LSR22 / 16C - 300	3.5	6	606	545	242
22.0	A	375	LSR22 / 16C - 375	3.5	6	542	487	217
22.0	CL	500	LSR22 / 16CL - 500	3.5	6	424	382	170
33.0	B	350	LSR33 / 16B - 350	5.3	8	493	444	197
33.0	B	500	LSR33 / 16B - 500	5.3	8	412	371	165
33.0	C	100	LSR33 / 16C - 100	5.3	6	1049	944	420
33.0	C	150	LSR33 / 16C - 150	5.3	6	856	771	343
33.0	C	225	LSR33 / 16C - 225	5.3	6	699	629	280
33.0	C	300	LSR33 / 16C - 300	5.3	6	606	545	242
33.0	CL	140	LSR33 / 16CL - 140	5.3	6	802	722	321
33.0	CL	175	LSR33 / 16CL - 175	5.3	6	717	645	287
33.0	CL	250	LSR33 / 16CL - 250	5.3	6	600	540	240
33.0	CL	400	LSR33 / 16CL - 400	5.3	6	474	427	190
33.0	CL	500	LSR33 / 16CL - 500	5.3	6	424	382	170
33.0	D	200	LSR33 / 16D - 200	5.3	6	866	779	346
33.0	DL	300	LSR33 / 16DL - 300	5.3	6	645	581	258
33.0	DL	400	LSR33 / 16DL - 400	5.3	6	559	503	224

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Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

##### 16 V DC @ 85°C (10 V DC @ 125°C) CONT'D

Capacitance ( $\mu\text{F}$ )	Case Size	ESR @ 100kHz max. ( $\text{m}\Omega$ )	Nemco Part No.	DCL ( $\mu\text{A}$ ) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (millamps)		
						25°C	85°C	125°C
47.0	C	110	LSR47 / 16C - 110	7.5	6	1000	900	400
47.0	C	350	LSR47 / 16C - 350	7.5	6	561	505	224
47.0	CL	200	LSR47 / 16CL - 200	7.5	6	671	604	268
47.0	D	80	LSR47 / 16D - 80	7.5	6	1369	1232	548
47.0	D	100	LSR47 / 16D - 100	7.5	6	1225	1102	490
47.0	D	150	LSR47 / 16D - 150	7.5	6	1000	900	400
47.0	D	200	LSR47 / 16D - 200	7.5	6	866	779	346
47.0	DL	250	LSR47 / 16DL - 250	7.5	6	707	636	283
68.0	C	125	LSR68 / 16C - 125	10.9	6	938	844	375
68.0	C	200	LSR68 / 16C - 200	10.9	6	742	667	297
68.0	D	40	LSR68 / 16D - 40	10.9	8	2525	2272	1010
68.0	D	50	LSR68 / 16D - 50	10.9	8	2258	2032	903
68.0	D	70	LSR68 / 16D - 70	10.9	6	1464	1317	586
68.0	D	100	LSR68 / 16D - 100	10.9	6	1225	1102	490
68.0	D	150	LSR68 / 16D - 150	10.9	6	1000	900	400
68.0	DL	150	LSR68 / 16DL - 150	10.9	6	913	822	365
68.0	DL	200	LSR68 / 16DL - 200	10.9	6	791	712	316
68.0	DL	250	LSR68 / 16DL - 250	10.9	6	707	636	283
100.0	C	200	LSR100 / 16C - 200	16.0	8	742	667	297
100.0	D	40	LSR100 / 16D - 40	16.0	8	2525	2272	1010
100.0	D	60	LSR100 / 16D - 60	16.0	6	1581	1423	632
100.0	D	50	LSR100 / 16D - 50	16.0	8	2258	2032	903
100.0	D	100	LSR100 / 16D - 100	16.0	6	1225	1102	490
100.0	D	125	LSR100 / 16D - 125	16.0	6	1095	986	438
100.0	D	150	LSR100 / 16D - 150	16.0	6	1000	900	400
100.0	DL	100	LSR100 / 16DL - 100	16.0	8	1118	1006	447
100.0	DL	150	LSR100 / 16DL - 150	16.0	8	913	822	365
100.0	DL	200	LSR100 / 16DL - 200	16.0	8	791	712	316
100.0	H	55	LSR100 / 16H - 55	16.0	6	1732	1559	693
100.0	H	100	LSR100 / 16H - 100	16.0	6	1285	1156	514
100.0	H	125	LSR100 / 16H - 125	16.0	6	1149	1034	460
100.0	H	150	LSR100 / 16H - 150	16.0	6	1049	944	420
150.0	D	60	LSR150 / 16D - 60	24.0	6	1581	1423	632
150.0	D	85	LSR150 / 16D - 85	24.0	6	1328	1196	531
150.0	D	100	LSR150 / 16D - 100	24.0	6	1225	1102	490
150.0	D	125	LSR150 / 16D - 125	24.0	6	1095	986	438
150.0	D	150	LSR150 / 16D - 150	24.0	6	1000	900	400
150.0	DL	200	LSR150 / 16DL - 200	24.0	15	791	712	316
150.0	H	30	LSR150 / 16H - 30	24.0	6	3000	2700	1200
150.0	H	40	LSR150 / 16H - 40	24.0	6	2598	2338	1039
150.0	H	100	LSR150 / 16H - 100	23.0	8	1285	1156	514
150.0	Z	45	LSR150 / 16Z - 45	24.0	8	2357	2121	943
150.0	Z	75	LSR150 / 16Z - 75	24.0	8	1826	1643	730
220.0	H	25	LSR220 / 16H - 25	35.0	6	3286	2958	1315
220.0	H	40	LSR220 / 16H - 40	35.0	6	2598	2338	1039
220.0	H	100	LSR220 / 16H - 100	35.2	10	1285	1156	514
220.0	H	150	LSR220 / 16H - 150	35.2	10	1049	944	420
220.0	Z	50	LSR220 / 16Z - 50	35.2	8	2236	2012	894
220.0	Z	75	LSR220 / 16Z - 75	35.2	8	1826	1643	730
220.0	Z	100	LSR220 / 16Z - 100	35.2	8	1581	1423	632
220.0	Z	150	LSR220 / 16Z - 150	35.2	8	1291	1162	516
330.0	H	200	LSR330 / 16H - 200	52.8	30	908	817	363

— Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

20V DC @ 85°C (13 V DC @ 125°C)

Capacitance ( $\mu$ F)	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu$ A) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (millamps)		
						25°C	85°C	125°C
1.0	A	3000	LSR1 / 20A - 3000	0.5	4	158	142	63
1.0	AL	6000	LSR1 / 20AL - 6000	0.5	4	104	94	42
1.0	BL	2000	LSR1 / 20BL - 2000	0.5	4	200	180	80
1.0	XL	6000	LSR1 / 20XL - 6000	0.5	4	96	86	38
2.2	A	3000	LSR2.2 / 20A - 3000	0.5	6	158	142	63
3.3	A	2500	LSR3.3 / 20A - 2500	0.7	6	173	156	69
3.3	B	1300	LSR3.3 / 20B - 1300	0.7	6	256	230	102
4.7	A	1800	LSR4.7 / 20A - 1800	0.9	6	204	184	82
4.7	B	750	LSR4.7 / 20B - 750	0.9	6	337	303	135
4.7	B	1000	LSR4.7 / 20B - 1000	0.9	6	292	262	117
6.8	A	1000	LSR6.8 / 20A - 1000	1.4	6	274	246	110
6.8	B	600	LSR6.8 / 20B - 600	1.4	6	376	339	151
6.8	B	1000	LSR6.8 / 20B - 1000	1.4	6	292	262	117
6.8	C	700	LSR6.8 / 20C - 700	1.4	6	396	357	159
10.0	B	500	LSR10 / 20B - 500	2.0	6	412	371	165
10.0	B	1000	LSR10 / 20B - 1000	2.0	6	292	262	117
10.0	C	500	LSR10 / 20C - 500	2.0	6	469	422	188
10.0	C	700	LSR10 / 20C - 700	2.0	6	396	357	159
10.0	CL	250	LSR10 / 20CL - 250	2.0	6	600	540	240
10.0	CL	500	LSR10 / 20CL - 500	2.0	6	424	382	170
15.0	B	500	LSR15 / 20B - 500	3.0	6	412	371	165
15.0	C	400	LSR15 / 20C - 400	3.0	6	524	472	210
15.0	C	450	LSR15 / 20C - 450	3.0	6	494	445	198
22.0	B	400	LSR22 / 20B - 400	4.4	6	461	415	184
22.0	B	600	LSR22 / 20B - 600	4.4	6	376	339	151
22.0	C	100	LSR22 / 20C - 100	4.4	6	1049	944	420
22.0	C	150	LSR22 / 20C - 150	4.4	6	856	771	343
22.0	C	400	LSR22 / 20C - 400	4.4	6	524	472	210
22.0	D	200	LSR22 / 20D - 200	4.4	6	866	779	346
22.0	D	300	LSR22 / 20D - 300	4.4	6	707	636	283
33.0	C	300	LSR33 / 20C - 300	6.6	6	606	545	242
33.0	D	100	LSR33 / 20D - 100	6.6	6	1225	1102	490
33.0	D	200	LSR33 / 20D - 200	6.6	6	866	779	346
47.0	D	45	LSR47 / 20D - 45	9.4	8	2380	2142	952
47.0	D	55	LSR47 / 20D - 55	9.4	8	2153	1938	861
47.0	D	75	LSR47 / 20D - 75	9.4	6	1414	1273	566
47.0	D	100	LSR47 / 20D - 100	9.4	6	1225	1102	490
47.0	D	200	LSR47 / 20D - 200	9.4	6	866	779	346
47.0	H	70	LSR47 / 20H - 70	9.4	6	1535	1382	614
47.0	H	125	LSR47 / 20H - 125	9.4	6	1149	1034	460
47.0	H	150	LSR47 / 20H - 150	9.4	6	1049	944	420
47.0	H	200	LSR47 / 20H - 200	9.4	6	908	817	363
47.0	H	250	LSR47 / 20H - 250	9.4	6	812	731	325
68.0	D	70	LSR68 / 20D - 70	13.6	6	1464	1317	586
68.0	D	150	LSR68 / 20D - 150	13.6	6	1000	900	400
68.0	D	200	LSR68 / 20D - 200	13.6	6	866	779	346
68.0	D	300	LSR68 / 20D - 300	13.6	6	707	636	283
68.0	H	125	LSR68 / 20H - 125	13.6	6	1149	1034	460
68.0	H	150	LSR68 / 20H - 150	13.6	6	1049	944	420
68.0	H	200	LSR68 / 20H - 200	13.6	6	908	817	363
100.0	D	85	LSR100 / 20D - 85	20.0	6	1328	1196	531
100.0	D	100	LSR100 / 20D - 100	20.0	6	1225	1102	490
100.0	D	150	LSR100 / 20D - 150	20.0	6	1000	900	400
100.0	H	35	LSR100 / 20H - 35	20.0	6	2777	2500	1111
100.0	H	45	LSR100 / 20H - 45	20.0	6	2449	2205	980
100.0	H	100	LSR100 / 20H - 100	20.0	6	1285	1156	514
100.0	H	150	LSR100 / 20H - 150	20.0	6	1049	944	420
100.0	H	200	LSR100 / 20H - 200	20.0	6	908	817	363
100.0	Z	60	LSR100 / 20Z - 60	20.0	8	2041	1837	816
100.0	Z	85	LSR100 / 20Z - 85	20.0	8	1715	1543	686
100.0	Z	100	LSR100 / 20Z - 100	20.0	8	1581	1423	632
100.0	Z	200	LSR100 / 20Z - 200	20.0	8	1118	1006	447
150.0	H	35	LSR150 / 20H - 35	30.0	10	2777	2500	1111
150.0	Z	80	LSR150 / 20Z - 80	30.0	8	1768	1591	707

Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

25V DC @ 85°C (17 V DC @ 125°C)								
Capacitance ( $\mu$ F)	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu$ A) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (millamps)		
						25°C	85°C	125°C
0.47	A	7000	LSR.47 / 25A - 7000	0.5	4	104	93	41
0.68	A	6000	LSR.68 / 25A - 6000	0.5	4	112	101	45
1.0	A	4000	LSR1.0 / 25A - 4000	0.5	4	137	123	55
1.0	XL	2500	LSR1 / 25XL - 2500	0.5	4	148	133	59
1.0	XL	4000	LSR1 / 25XL - 4000	0.5	4	117	106	47
1.5	A	3000	LSR1.5 / 25A - 3000	0.5	6	158	142	63
1.5	B	1800	LSR1.5 / 25B - 1800	0.5	6	217	196	87
2.2	B	900	LSR2.2 / 25B - 900	0.6	6	307	277	123
2.2	B	1200	LSR2.2 / 25B - 1200	0.6	6	266	240	106
2.2	B	2500	LSR2.2 / 25B - 2500	0.6	6	184	166	74
3.3	A	1000	LSR3.3 / 25A - 1000	0.8	6	274	246	110
3.3	A	1500	LSR3.3 / 25A - 1500	0.8	6	224	201	89
3.3	B	750	LSR3.3 / 25B - 750	0.8	6	337	303	135
3.3	B	1500	LSR3.3 / 25B - 1500	0.8	6	238	214	95
3.3	B	2000	LSR3.3 / 25B - 2000	0.8	6	206	186	82
4.7	B	700	LSR4.7 / 25B - 700	1.2	6	348	314	139
4.7	B	900	LSR4.7 / 25B - 900	1.2	6	307	277	123
4.7	B	1500	LSR4.7 / 25B - 1500	1.2	6	238	214	95
6.8	B	700	LSR6.8 / 25B - 700	1.7	6	348	314	139
6.8	C	500	LSR6.8 / 25C - 500	1.7	6	469	422	188
6.8	C	600	LSR6.8 / 25C - 600	1.7	6	428	385	171
6.8	C	700	LSR6.8 / 25C - 700	1.7	6	396	357	159
10.0	B	1800	LSR10 / 25B - 1800	2.5	6	217	196	87
10.0	C	300	LSR10 / 25C - 300	2.5	6	606	545	242
10.0	C	500	LSR10 / 25C - 500	2.5	6	469	422	188
15.0	C	220	LSR15 / 25C - 220	3.8	6	707	636	283
15.0	C	300	LSR15 / 25C - 300	3.8	6	606	545	242
15.0	D	100	LSR15 / 25D - 100	3.8	6	1225	1102	490
15.0	D	300	LSR15 / 25D - 300	3.8	6	707	636	283
22.0	C	275	LSR22 / 25C - 275	5.5	6	632	569	253
22.0	C	400	LSR22 / 25C - 400	5.5	6	524	472	210
22.0	D	100	LSR22 / 25D - 100	5.5	6	1225	1102	490
22.0	D	200	LSR22 / 25D - 200	5.5	6	866	779	346
22.0	D	300	LSR22 / 25D - 300	5.5	6	707	636	283
33.0	D	65	LSR33 / 25D - 65	8.3	8	1981	1783	792
33.0	D	100	LSR33 / 25D - 100	8.3	6	1225	1102	490
33.0	D	200	LSR33 / 25D - 200	8.3	6	866	779	346
33.0	D	300	LSR33 / 25D - 300	8.3	6	707	636	283
33.0	DL	200	LSR33 / 25DL - 200	8.3	6	791	712	316
33.0	H	100	LSR33 / 25H - 100	8.3	6	1285	1156	514
33.0	H	175	LSR33 / 25H - 175	8.3	6	971	874	388
33.0	H	200	LSR33 / 25H - 200	8.3	6	908	817	363
33.0	H	300	LSR33 / 25H - 300	8.3	6	742	667	297
47.0	D	55	LSR47 / 25D - 55	11.8	8	2153	1938	861
47.0	D	125	LSR47 / 25D - 125	11.8	6	1095	986	438
47.0	D	150	LSR47 / 25D - 150	11.8	6	1000	900	400
47.0	D	250	LSR47 / 25D - 250	11.8	6	775	697	310
47.0	H	65	LSR47 / 25H - 65	11.8	6	2038	1834	815
47.0	H	80	LSR47 / 25H - 80	11.8	6	1436	1293	574
47.0	H	100	LSR47 / 25H - 100	11.8	6	1285	1156	514
47.0	H	125	LSR47 / 25H - 125	11.8	6	1149	1034	460
68.0	H	45	LSR68 / 25H - 45	17.0	6	2449	2205	980
68.0	H	55	LSR68 / 25H - 55	17.0	6	2216	1994	886
68.0	H	125	LSR68 / 25H - 125	17.0	6	1149	1034	459
68.0	H	200	LSR68 / 25H - 200	17.0	6	908	817	363
68.0	Z	80	LSR68 / 25Z - 80	17.0	6	1768	1591	707
68.0	Z	95	LSR68 / 25Z - 95	17.0	8	1622	1460	649
68.0	Z	150	LSR68 / 25Z - 150	17.0	8	1291	1162	516
68.0	Z	200	LSR68 / 25Z - 200	17.0	6	1118	1006	447
100.0	H	150	LSR100 / 25H - 150	25.0	10	1049	944	420
100.0	Z	100	LSR100 / 25Z - 100	25.0	8	1581	1423	632
150.0	Z	150	LSR150 / 25Z - 150	37.5	10	1291	1162	516

Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

35V DC @ 85°C (23 V DC @ 125°C)								
Capacitance ( $\mu$ F)	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu$ A) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (millamps)		
						25°C	85°C	125°C
0.22	A	6000	LSR.22 / 35A - 6000	0.5	4	112	101	45
0.33	A	6000	LSR.33 / 35A - 6000	0.5	4	112	101	45
0.47	A	6000	LSR.47 / 35A - 6000	0.5	4	112	101	45
0.47	B	4000	LSR.47 / 35B - 4000	0.5	4	146	131	58
0.68	A	6000	LSR.68 / 35A - 6000	0.5	4	112	101	45
1.0	A	3000	LSR1 / 35A - 3000	0.5	4	158	142	63
1.0	B	2000	LSR1 / 35B - 2000	0.5	4	206	186	82
1.5	B	2500	LSR1.5 / 35B - 2500	0.5	6	184	166	74
2.2	A	1500	LSR2.2 / 35A - 1500	0.8	6	224	201	89
2.2	B	750	LSR2.2 / 35B - 750	0.8	6	337	303	135
2.2	B	1500	LSR2.2 / 35B - 1500	0.8	6	238	214	95
2.2	B	2000	LSR2.2 / 35B - 2000	0.8	6	206	186	82
2.2	C	1000	LSR2.2 / 35C - 1000	0.8	6	332	298	133
3.3	B	1000	LSR3.3 / 35B - 1000	1.2	6	292	262	117
3.3	C	700	LSR3.3 / 35C - 700	1.2	6	396	357	159
4.7	B	700	LSR4.7 / 35B - 700	1.6	6	348	314	139
4.7	B	1500	LSR4.7 / 35B - 1500	1.6	6	238	214	95
4.7	C	600	LSR4.7 / 35C - 600	1.6	6	428	385	171
4.7	D	700	LSR4.7 / 35D - 700	1.6	6	463	417	185
6.8	C	350	LSR6.8 / 35C - 350	2.4	6	561	505	224
6.8	D	150	LSR6.8 / 35D - 150	2.4	6	1000	900	400
6.8	D	400	LSR6.8 / 35D - 400	2.4	6	612	551	245
6.8	D	500	LSR6.8 / 35D - 500	2.4	6	548	493	219
10.0	D	125	LSR10 / 35D - 125	3.5	6	1095	986	438
10.0	D	300	LSR10 / 35D - 300	3.5	6	707	636	283
10.0	DL	250	LSR10 / 35DL - 250	3.5	6	707	636	283
10.0	H	200	LSR10 / 35H - 200	3.5	6	908	817	363
15.0	C	350	LSR15 / 35C - 350	5.3	6	561	505	224
15.0	C	450	LSR15 / 35C - 450	5.3	6	494	445	198
15.0	D	100	LSR15 / 35D - 100	5.3	6	1225	1102	490
15.0	D	300	LSR15 / 35D - 300	5.3	6	707	636	283
15.0	DL	250	LSR15 / 35DL - 250	5.3	6	707	636	283
22.0	D	70	LSR22 / 35D - 70	7.7	8	1909	1718	763
22.0	D	125	LSR22 / 35D - 125	7.7	6	1095	986	438
22.0	D	200	LSR22 / 35D - 200	7.7	6	866	779	346
22.0	D	300	LSR22 / 35D - 300	7.7	6	707	636	283
22.0	D	400	LSR22 / 35D - 400	7.7	6	612	551	245
22.0	DL	200	LSR22 / 35DL - 200	7.7	6	791	712	316
22.0	H	60	LSR22 / 35H - 60	8.0	6	2121	1909	849
22.0	H	100	LSR22 / 35H - 100	8.0	6	1643	1479	657
22.0	H	125	LSR22 / 35H - 125	7.7	6	1149	1034	460
22.0	H	200	LSR22 / 35H - 200	7.7	6	908	817	363
22.0	H	300	LSR22 / 35H - 300	7.7	6	742	667	297
33.0	D	200	LSR33 / 35D - 200	11.6	6	866	779	346
33.0	D	300	LSR33 / 35D - 300	11.6	6	707	636	283
33.0	H	50	LSR33 / 35H - 50	12.0	6	2324	2091	930
33.0	H	65	LSR33 / 35H - 65	12.0	6	2038	1834	815
33.0	H	100	LSR33 / 35H - 100	11.6	6	1285	1156	514
33.0	H	250	LSR33 / 35H - 250	11.6	6	812	731	325
33.0	H	300	LSR33 / 35H - 300	11.6	6	742	667	297
33.0	Z	200	LSR33 / 35Z - 200	11.6	6	1118	1006	447
47.0	H	55	LSR47 / 35H - 55	16.0	6	2216	1994	886
47.0	H	65	LSR47 / 35H - 65	16.0	6	2038	1834	815
47.0	H	200	LSR47 / 35H - 200	16.5	6	908	817	363
47.0	H	250	LSR47 / 35H - 250	16.5	6	812	731	325
47.0	Z	150	LSR47 / 35Z - 150	16.5	6	1291	1162	516
47.0	Z	200	LSR47 / 35Z - 200	16.5	6	1118	1006	447
68.0	Z	150	LSR68 / 35Z - 150	23.8	6	1291	1162	516
68.0	Z	200	LSR68 / 35Z - 200	23.8	6	1118	1006	447

Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

NEMCO reserves the right to supply a higher voltage rating, tighter tolerance and/or lower ESR in the same case size, to the same reliability standards.

#### RATINGS AND PART NUMBER REFERENCE

50V DC @ 85°C (33 V DC @ 125°C)								
Capacitance ( $\mu$ F)	Case Size	ESR @ 100kHz max. (m $\Omega$ )	Nemco Part No.	DCL ( $\mu$ A) max	tan $\delta$ max. (%)	Max. Ripple Current @100kHz mA (milliamps)		
						25°C	85°C	125°C
0.15	A	9000	LSR.15 / 50A - 9000	0.5	4	91	82	37
0.22	A	7000	LSR.22 / 50A - 7000	0.5	4	104	93	41
0.47	C	2300	LSR.47 / 50C - 2300	0.5	4	219	197	87
1.0	C	2500	LSR1 / 50C - 2500	0.5	4	210	189	84
1.5	C	1500	LSR1.5 / 50C - 1500	0.8	6	271	244	108
1.5	C	2000	LSR1.5 / 50C - 2000	0.8	6	235	211	94
2.2	D	1200	LSR2.2 / 50D - 1200	1.1	6	354	318	141
3.3	D	800	LSR3.3 / 50D - 800	1.7	6	433	390	173
4.7	D	300	LSR4.7 / 50D - 300	2.4	6	707	636	283
4.7	D	500	LSR4.7 / 50D - 500	2.4	6	548	493	219
4.7	D	700	LSR4.7 / 50D - 700	2.4	6	463	417	185
6.8	D	200	LSR6.8 / 50D - 200	3.4	6	866	779	346
6.8	D	300	LSR6.8 / 50D - 300	3.4	6	707	636	283
6.8	D	500	LSR6.8 / 50D - 500	3.4	6	548	493	219
6.8	D	600	LSR6.8 / 50D - 600	3.4	6	500	450	200
10.0	D	140	LSR10 / 50D - 140	5.0	8	1350	1215	540
10.0	H	120	LSR10 / 50H - 120	5.0	6	1500	1350	600
10.0	H	250	LSR10 / 50H - 250	5.0	6	812	731	325
10.0	H	300	LSR10 / 50H - 300	5.0	6	742	667	297
10.0	H	500	LSR10 / 50H - 500	5.0	6	574	517	230
15.0	H	75	LSR15 / 50H - 75	7.5	6	1897	1708	759
15.0	H	100	LSR15 / 50H - 100	7.5	6	1643	1479	657
15.0	H	250	LSR15 / 50H - 250	7.5	6	812	731	325
15.0	Z	250	LSR15 / 50Z - 250	7.5	6	1000	900	400
22.0	H	75	LSR22 / 50H - 75	11.0	8	1897	1708	759
22.0	H	100	LSR22 / 50H - 100	11.0	8	1643	1479	657

Insert tolerance M( $\pm 20\%$ ) or K( $\pm 10\%$ ) to complete the Nemco part number

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#### PACKAGING REFERENCE

CASE SIZE	CASE SIZE	STANDARD PACKAGING	AVAILABLE
NEMCO	EIA IECQ	7" Reel Quantity	13" Reel Quantity
A	3216-18	<b>2000</b>	8000
B	3528-21	<b>2000</b>	8000
C	6032-28	<b>500</b>	3000
D	7343-31	<b>500</b>	2500
H	7343-43	<b>400</b>	1500
Z	7361-37	<b>400</b>	1500
<u>Low Profile Sizes</u>			
XL	2012-12	<b>2500</b>	10000
AL	3216-12	<b>2500</b>	10000
BL	3528-12	<b>2500</b>	10000
CL	6032-15	<b>1000</b>	5000
DL	7343-20	<b>1000</b>	5000