



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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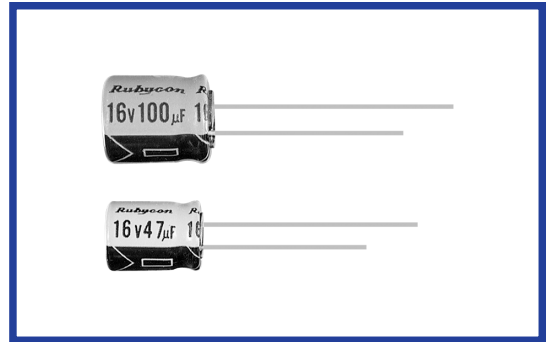
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TWL SERIES
Low Leakage Current

RoHS compliance


◆ SPECIFICATIONS

Items	Characteristics																																																						
Category Temperature Range	-40~+85°C																																																						
Rated Voltage Range	6.3~50Vdc																																																						
Capacitance Tolerance	±20% (20°C, 120Hz)																																																						
Leakage Current(MAX)	I=0.002CV or 0.4µA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(µA) C=Capacitance(µF) V=Rated Voltage(Vdc)																																																						
Dissipation Factor(MAX) (tanδ)	<table border="1"> <tr> <td colspan="2">〈L=7〉</td> <td colspan="6"></td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>Rated Voltage (Vdc)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td colspan="2"></td> </tr> <tr> <td>tanδ</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">〈L≥11〉</td> <td colspan="6"></td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>Rated Voltage (Vdc)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td colspan="2"></td> </tr> <tr> <td>tanδ</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td colspan="2"></td> </tr> </table> <p>When capacitance is over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF.</p>	〈L=7〉								(20°C, 120Hz)	Rated Voltage (Vdc)	6.3	10	16	25	35	50			tanδ	0.24	0.20	0.16	0.14	0.12	0.10			〈L≥11〉								(20°C, 120Hz)	Rated Voltage (Vdc)	6.3	10	16	25	35	50			tanδ	0.22	0.19	0.16	0.14	0.12	0.10		
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Endurance	<p>After applying rated voltage with rated ripple current for specified time at 85°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±25% of the initial value.</td> <td>Case Size</td> <td>Life Time (hrs)</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> <td>L=7</td> <td>1000</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> <td>L≥11</td> <td>2000</td> </tr> </table>	Capacitance Change	Within ±25% of the initial value.	Case Size	Life Time (hrs)	Dissipation Factor	Not more than 200% of the specified value.	L=7	1000	Leakage Current	Not more than the specified value.	L≥11	2000																																										
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated Voltage (Vdc)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>8</td> <td>6</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td></td> </tr> </table>	Rated Voltage (Vdc)	6.3	10	16	25	35	50	(120Hz)	Z(-25°C)/Z(20°C)	4	3	2	2	2	2		Z(-40°C)/Z(20°C)	8	6	6	4	4	3																															
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◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)	60(50)	120	500	1k	10k≤	
Coefficient	0.47~1µF	0.50	1.00	1.20	1.30	1.50
	2.2~4.7µF	0.65	1.00	1.20	1.30	1.50
	10~47µF	0.80	1.00	1.20	1.30	1.50
	100~1000µF	0.80	1.00	1.10	1.15	1.20
	2200µF	0.80	1.00	1.05	1.10	1.15

◆ OPTION

	Code
PET Sleeve	EFC

◆ PART NUMBER

□□□	TWL	□□□□□	M	□□□	□□	DXL
Rated Voltage	Series	Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

