

**TRV SERIES**
**NEW**
**Load Life : 105°C 5000 ~ 10000hours, Low Impedance, Lead Free Reflow Soldering**
**◆FEATURES**

- Load Life 105°C 5000~10000 hours.
- Lead free Reflow soldering is available.
- Prescribe Impedance value at 100kHz.
- RoHS compliance.


**◆SPECIFICATIONS**

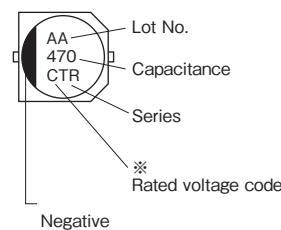
Items	Characteristics																								
Category Temperature Range	-40~+105°C																								
Rated Voltage Range	6.3~50Vdc																								
Capacitance Tolerance	±20% (20°C, 120Hz)																								
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current (μA)      C=Capacitance (μF)      V=Rated Voltage(Vdc)																								
(tanδ) Dissipation Factor(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>(20°C, 120Hz)</th> </tr> </thead> <tbody> <tr> <td>φ6.3~10</td> <td>0.32</td> <td>0.28</td> <td>0.26</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> <td></td> </tr> <tr> <td>φ12.5~18</td> <td>0.30</td> <td>0.26</td> <td>0.22</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td></td> </tr> </tbody> </table> <p>When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000 μF.</p>	Rated Voltage (Vdc)	6.3	10	16	25	35	50	(20°C, 120Hz)	φ6.3~10	0.32	0.28	0.26	0.16	0.14	0.14		φ12.5~18	0.30	0.26	0.22	0.16	0.14	0.12	
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Endurance	<p>After applying rated voltage for specified time at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <thead> <tr> <th>Capacitance Change</th> <th>Within ±30% of the initial value.</th> <th>Case Size</th> <th>LifeTime (hrs)</th> </tr> </thead> <tbody> <tr> <td>Dissipation Factor</td> <td>Not more than 300% of the specified value.</td> <td>φD=6.3</td> <td>L=6.1: 5000 L=8: 6000</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> <td>φD=8, 10</td> <td>8000</td> </tr> <tr> <td></td> <td></td> <td>φD≥12.5</td> <td>10000</td> </tr> </tbody> </table>	Capacitance Change	Within ±30% of the initial value.	Case Size	LifeTime (hrs)	Dissipation Factor	Not more than 300% of the specified value.	φD=6.3	L=6.1: 5000 L=8: 6000	Leakage Current	Not more than the specified value.	φD=8, 10	8000			φD≥12.5	10000								
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>(120Hz)</th> </tr> </thead> <tbody> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td></td> </tr> </tbody> </table>	Rated Voltage (Vdc)	6.3	10	16	25	35	50	(120Hz)	Z(-40°C)/Z(20°C)	4	4	4	4	3	3									
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**◆MULTIPLIER FOR RIPPLE CURRENT**

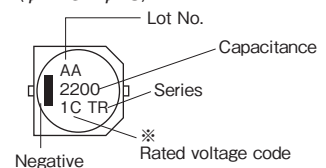
Frequency (Hz)		120	1k	10k	100k≤
Coefficient	10~33μF	0.45	0.75	0.90	1.00
	47~100μF	0.50	0.80	0.95	1.00
	220~8200μF	0.60	0.85	0.95	1.00

**◆MARKING**

(φ6.3~φ10)



(φ12.5~φ18)



※ Voltage code

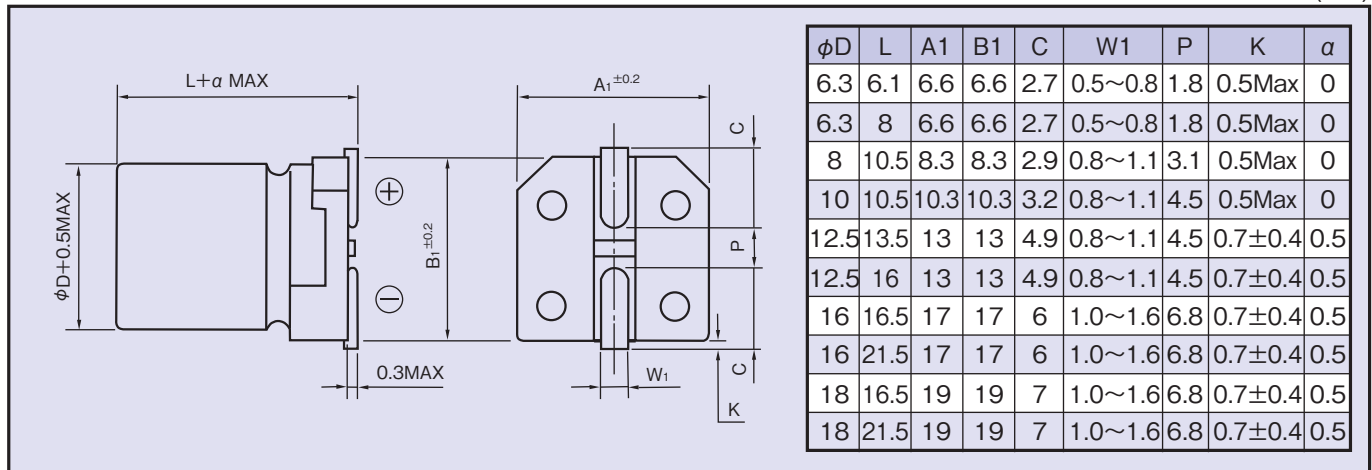
Rated Voltage (Vdc)	6.3	10	16	25	35	50
φD≤10	j	A	C	E	V	H
φD≥12.5	OJ	1A	1C	1E	1V	1H

**◆PART NUMBER**

□□□	TRV	□□□□□	M	□□□	DXL
Rated Voltage	Series	Capacitance	Capacitance Tolerance	Option	Case Size

◆ DIMENSIONS

(mm)



◆ STANDARD SIZE

Size φDXL(mm), Rated Ripple Current(mA r.m.s./105°C,100kHz), Impedance(Ω MAX/20°C, 100kHz)

Vdc	Cap (μF)	Size (φDXL)	Ripple	Impedance	Vdc	Cap (μF)	Size (φDXL)	Ripple	Impedance	
6.3	470	8×10.5	600	0.15	25	100	6.3×8	230	0.7	
	820	10×10.5	850	0.12		220	8×10.5	600	0.15	
	2200	12.5×13.5	950	0.092		330	10×10.5	850	0.12	
	2700	12.5×16	1200	0.074		1000	12.5×13.5	950	0.092	
	3900	16×16.5	1450	0.066		1200	12.5×16	1200	0.074	
	5600	18×16.5	1550	0.064		1500	16×16.5	1450	0.066	
	6800	16×21.5	2000	0.041		2200	18×16.5	1550	0.064	
	8200	18×21.5	2150	0.039		2700	16×21.5	2000	0.041	
10	330	8×10.5	600	0.15		35	3300	18×21.5	2150	0.039
	680	10×10.5	850	0.12			10	6.3×6.1	140	1
	1800	12.5×13.5	950	0.092	22		6.3×6.1	140	1	
	2200	12.5×16	1200	0.074	33		6.3×6.1	140	1	
	3300	16×16.5	1450	0.066	47		6.3×8	230	0.7	
	4700	18×16.5	1550	0.064	100		8×10.5	600	0.15	
	5600	16×21.5	2000	0.041	220		10×10.5	850	0.12	
	6800	18×21.5	2150	0.039	470		12.5×13.5	950	0.092	
16	330	8×10.5	600	0.15	50		680	12.5×16	1200	0.074
	470	10×10.5	850	0.12			1000	16×16.5	1450	0.066
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	4700	16×21.5	2000	0.041		33	6.3×8	230	0.7	
	5600	18×21.5	2150	0.039		47	8×10.5	350	0.36	
				100		10×10.5	670	0.25		
				330		12.5×13.5	850	0.18		
				390	12.5×16	950	0.15			
				470	16×16.5	1200	0.12			
				820	18×16.5	1300	0.12			
				1000	16×21.5	1600	0.08			
				1500	18×21.5	1650	0.072			