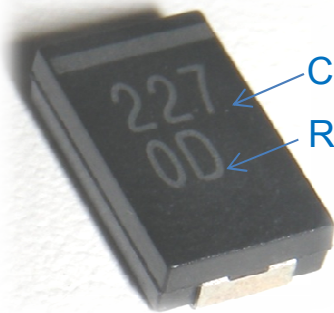


Murata is expanding its high capacitance offering in non-ceramic technologies. Our strategy in the mid-to-long term is to focus on high capacitance areas that complement our MLCC line-up. This will allow us to provide you value with our high performance capacitor solutions.

## Appearance

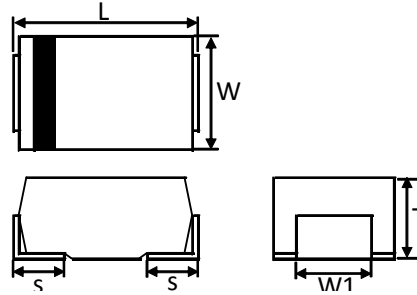


Capacitance code

Rated Voltage code

2V/220uF

## External Dimensions



Unit:mm

Case size	EIA code	L	W	T	W1	S
D3	7343	7.3+/-0.3	4.3+/-0.2	1.5+/-0.1	2.4+/-0.2	1.3+/-0.2
D4	7343	7.3+/-0.3	4.3+/-0.2	1.9+/-0.1	2.4+/-0.2	1.3+/-0.2
D6	7343	7.3+/-0.3	4.3+/-0.2	2.8+/-0.3	2.4+/-0.2	1.3+/-0.2
D9	7343	7.3+/-0.3	4.3+/-0.3	4.2+/-0.3	2.4+/-0.2	1.3+/-0.2

## Line-up

Cap(uF) Volt.(V)	6.8	8.2	10	15	22	33	47	56	68	82	100	150	180	220	270	330	470		
2	Case Size ESR (mohm)										D4 16	D4 9		D4 9		D4 6	D6 7	D4 4.5	D6 6
4									D4 20	D4 16		D4 16	D6 12	D6 10		D9 8			
6.3			D4 55		D4 45	D4 25	D4 25		D4 15		D4 15	D6 10		D9 10					
8				D4 40	D4 45	D4 25			D6 15		D9 10								
10			D4 55		D4 28	D4 25			D6 15		D9 10	D9 10		Mass Production					
12.5			D4 55	D4 45	D4 30	D6 25	D6 20	D9 20			D9 12			Sample release					
16	D4 70		D4 60	D4 40	D6 30									Under development					

Development plan

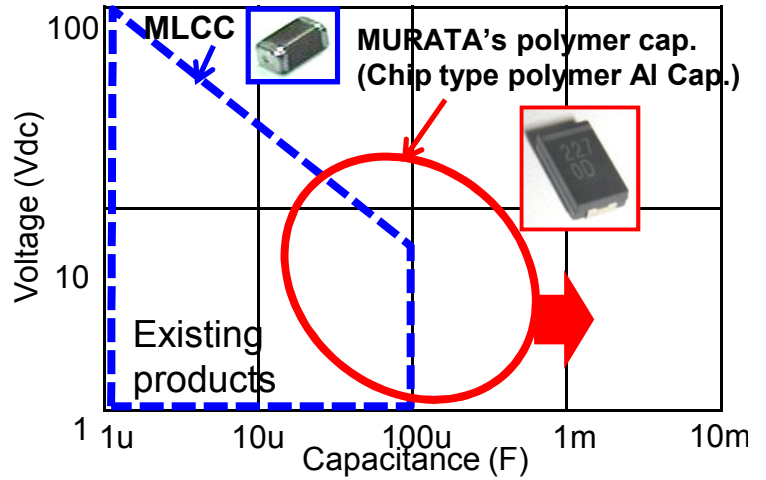
2V/:330uF(D4) ->2010.1Q . 2V/470uF(D4) ->2010.4Q (1Q:JAN to MAR)

## Features

MURATA's polymer capacitor has multilayer construction. Cathode uses conductive polymer with high conductivity. And anode uses aluminum foil.

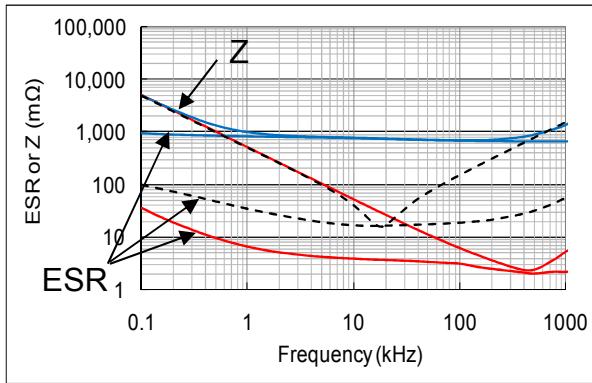
- High Capacitance & Low ESR.
- Good temperature characteristic.
- No need for voltage derating.
- Resistance to short circuit.

## Capacitor Map



## 2V/330uF

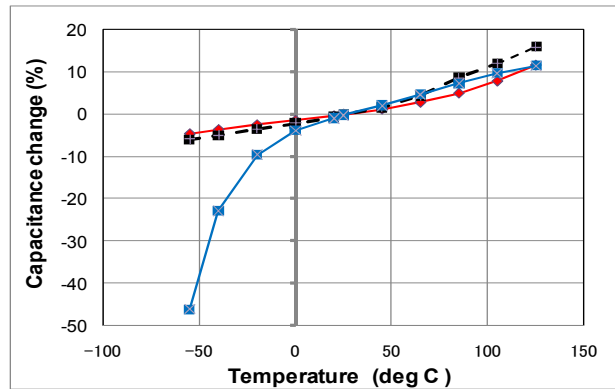
### (Low ESR & Z)



— MURATA's polymer capacitor (H-chip)    - - - Al (V-chip / polymer)    — Al (V-chip /electrolyte)



### (Good temperature characteristic)

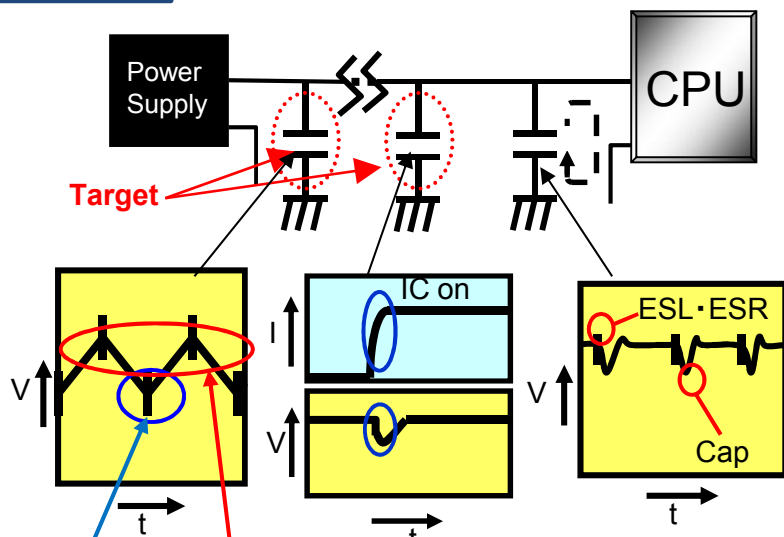


## Typical Characteristics

## Circuit

Power source line around CPU ,IC,etc...

For Noise Suppression  
For Ripple Absorption  
For Decoupling



- ① High-frequency noise elimination from IC.
- ② Change control of source voltage.
- ③ Smoothing source voltage.
- ④ Ripple elimination.

## Application

Laptop PC,  
Netbook,  
Server,  
Multi Functional Printer,  
Flat Panel Display,  
etc...

## Spec.

Item	Test Conditions	Characteristics	
Operating	-	-40 to +105°C	
Rated Voltage	-	See Line up list	
Leakage	Applied voltage: Rated Voltage Measuring after 2 minutes of application	≤0.04CV for 2V to 10V, ≤0.1CV for 12.5V to 16V	
Capacitance	120Hz/25°C	See Line up list	
Capacitance tolerance	120Hz/25°C	+/- 20% See Line up list for detail	
Dissipation Factor	120Hz/25°C	≤0.06	
ESR	100KHz/25°C	See Line up list	
Allowable Ripple Current	Measuring frequency: 100kHz +/-10% Measuring temperature: +20 to +105 °C	See Line up list	
Surge	Test cycle: 1,000 cycle Applied voltage: Rated voltage x1.25 Test temp:85°C for 2V to 10V Test temp:25°C for 12.5V to 16V	Leakage Current	≤0.04CV for 2Vto10V ≤0.1CV for 12.5Vto16V
		Capacitance Change	+/-10% of initial measured value
		Dissipation Factor	≤0.06
		Leakage Current	≤0.04CV for 2V to 10V ≤0.1CV for 12.5V to 16V
Endurance	Test temperature: 105 ±2 °C Applied voltage: Rated voltage Test time: 1,000 +48, -0h	Capacitance Change	±10% of initial measured value
		Dissipation Factor	≤0.06
		Leakage Current	≤0.04CV for 2V to 10V ≤0.1CV for 12.5V to 16V
		Capacitance Change	±10% of initial measured value
Moisture resistance	Test temperature: 60 +/-2 °C Relative humidity: 90 to 95%RH Applied voltage: Rated voltage Test time: 1,000 +48, -0h	Leakage Current	≤0.04CV for 2V to 10V ≤0.1CV for 12.5V to 16V
		Capacitance Change	-20% and +50% of initial value
		Dissipation Factor	≤0.12
		Leakage Current	≤0.04CV for 2V to 10V ≤0.1CV for 12.5V to 16V
Solderability	Solder temperature: 235 +/-5 °C Immersing time: 5 +/-0.5s	More than 95% of a terminal face covered by new solder	

Please see the Individual Specification for details.

## Part Number

ECAS D4 0D 337 M 006 K 00

-1- -2- -3- -4- -5- -6- -7- -8-

### -1:-Series

Code	Product
ECAS	Polymer Electrolytic Capacitor

### -2:-Dimension (LxWxT) (mm)

Code	L	W	T
D3	7.3+/-0.3	4.3+/-0.2	1.5+/-0.1
D4	7.3+/-0.3	4.3+/-0.2	1.9+/-0.1
D6	7.3+/-0.3	4.3+/-0.2	2.8+/-0.3
D9	7.3+/-0.3	4.3+/-0.3	4.2+/-0.3

### -3:-Rated Voltage

Code	Rated Voltage
0D	DC 2V
0E	DC 2.5V
0G	DC 4V
0J	DC 6.3V
0K	DC 8V
1A	DC 10V
1B	DC 12.5V
1C	DC 16V

### -4:-Capacitance

Code	Capacitance
476	47uF
107	100uF
227	220uF
477	470uF

### -5:-Capacitance Tolerance

Code	Cap. Tol.
M	+/-20%

### -6:-ESR

Code	ESR
4R5	4.5mΩ
006	6mΩ
010	10mΩ

### -7:-Packaging

Code	Packaging
K	Φ330mm Plastic Taping

### -8:-Individual Specification Code

# Murata's Polymer Aluminum Electrolytic Capacitor



Issued in JAN. 2010

## Line-up List

Status(*)	Rated Voltage (V.DC)	Cap. ( $\mu$ F) 120Hz /25°C	Case Size			Cap Tolerance %	ESR Max. (m $\Omega$ ) 100KHz/+ 25°C	Leakage Current (CV)	Ripple Current 100KHz /+20~ 105°C	Min.Packagin g Quantity(Pcs ) Remarks	Part Number(Murata)
			L x W (mm)	T (mm)							
STD	2	100	D4	7343	1.9	±20%	16	0.04CV	2.0Arms	3,000	ECASD40D107M016K00
STD	2	150	D4	7343	1.9	±20%	9	0.04CV	3.0Arms	3,000	ECASD40D157M009K00
STD	2	220	D4	7343	1.9	±20%	9	0.04CV	3.0Arms	3,000	ECASD40D227M009K00
STD	2	330	D6	7343	2.8	±20%	7	0.04CV	3.5Arms	2,500	ECASD60D337M007K00
STD	2	470	D6	7343	2.8	±20%	6	0.04CV	3.5Arms	2,500	ECASD60D477M006K00
STD	4	68	D4	7343	1.9	±20%	20	0.04CV	1.9Arms	3,000	ECASD40G686M020K00
STD	4	82	D4	7343	1.9	±20%	16	0.04CV	2.1Arms	3,000	ECASD40G826M016K00
STD	4	150	D4	7343	1.9	±20%	16	0.04CV	2.1Arms	3,000	ECASD40G157M016K00
STD	4	150	D6	7343	2.8	±20%	14	0.04CV	2.3Arms	2,500	ECASD60G157M014K00
STD	4	180	D6	7343	2.8	±20%	12	0.04CV	2.5Arms	2,500	ECASD60G187M012K00
STD	4	220	D6	7343	2.8	±20%	10	0.04CV	3.0Arms	2,500	ECASD60G227M010K00
SR	4	220	D9	7343	4.2	±20%	8	0.04CV	3.3Arms	2,000	ECASD90G227M008K00
STD	4	330	D9	7343	4.2	±20%	8	0.04CV	3.3Arms	2,000	ECASD90G337M008K00
STD	6.3	10	D4	7343	1.9	±20%	55	0.04CV	1.0Arms	3,000	ECASD40J106M055K00
SR	6.3	22	D4	7343	1.9	±20%	45	0.04CV	1.0Arms	3,000	ECASD40J226M045K00
SR	6.3	33	D4	7343	1.9	±20%	25	0.04CV	1.8Arms	3,000	ECASD40J336M025K00
STD	6.3	47	D4	7343	1.9	±20%	25	0.04CV	1.8Arms	3,000	ECASD40J476M025K00
SR	6.3	68	D4	7343	1.9	±20%	15	0.04CV	2.0Arms	3,000	ECASD40J686M015K00
STD	6.3	100	D4	7343	1.9	±20%	15	0.04CV	2.0Arms	3,000	ECASD40J107M015K00
STD	6.3	150	D6	7343	2.8	±20%	10	0.04CV	3.0Arms	2,500	ECASD60J157M010K00
STD	6.3	220	D9	7343	4.2	±20%	10	0.04CV	3.0Arms	2,000	ECASD90J227M010K00
SR	8	15	D4	7343	1.9	±20%	40	0.04CV	1.0Arms	3,000	ECASD40K156M040K00
SR	8	22	D4	7343	1.9	±20%	45	0.04CV	1.0Arms	3,000	ECASD40K226M045K00
SR	8	33	D4	7343	1.9	±20%	25	0.04CV	1.8Arms	3,000	ECASD40K336M025K00
SR	8	68	D6	7343	2.8	±20%	15	0.04CV	2.0Arms	2,500	ECASD60K686M015K00
SR	8	100	D9	7343	4.2	±20%	10	0.04CV	3.0Arms	2,000	ECASD90K107M010K00
SR	10	10	D4	7343	1.9	±20%	55	0.04CV	1.0Arms	3,000	ECASD41A106M055K00
STD	10	22	D4	7343	1.9	±20%	28	0.04CV	1.6Arms	3,000	ECASD41A226M028K00
SR	10	33	D4	7343	1.9	±20%	25	0.04CV	1.8Arms	3,000	ECASD41A336M025K00
SR	10	68	D6	7343	2.8	±20%	15	0.04CV	2.0Arms	2,500	ECASD61A686M015K00
SR	10	100	D9	7343	4.2	±20%	10	0.04CV	3.0Arms	2,000	ECASD91A107M010K00
SR	10	150	D9	7343	4.2	±20%	10	0.04CV	3.0Arms	2,000	ECASD91A157M010K00
STD	12.5	10	D4	7343	1.9	±20%	55	0.1CV	1.0Arms	3,000	ECASD41B106M055K00
STD	12.5	15	D4	7343	1.9	±20%	45	0.1CV	1.0Arms	3,000	ECASD41B156M045K00
STD	12.5	22	D4	7343	1.9	±20%	30	0.1CV	1.6Arms	3,000	ECASD41B226M030K00
STD	12.5	33	D6	7343	2.8	±20%	25	0.1CV	1.8Arms	2,500	ECASD61B336M025K00
STD	12.5	47	D6	7343	2.8	±20%	20	0.1CV	2.0Arms	2,500	ECASD61B476M020K00
SR	12.5	56	D9	7343	4.2	±20%	20	0.1CV	2.0Arms	2,000	ECASD91B566M020K00
STD	12.5	100	D9	7343	4.2	±20%	12	0.1CV	2.5Arms	2,000	ECASD91B107M012K00
STD	16	6.8	D4	7343	1.9	±20%	70	0.1CV	1.0Arms	3,000	ECASD41C685M070K00
STD	16	10	D4	7343	1.9	±20%	60	0.1CV	1.0Arms	3,000	ECASD41C106M060K00
STD	16	15	D4	7343	1.9	±20%	40	0.1CV	1.0Arms	3,000	ECASD41C156M040K00
STD	16	22	D6	7343	2.8	±20%	30	0.1CV	1.6Arms	2,500	ECASD61C226M030K00

\*Status (Standard : STD, Sample release : SR)

This line-up is Murata's standard product. If you need other specs, please contact Murata.

TPOAP-005