

### Surface Mount Type

**LX** series

[Low ESR / Low ESL products]



### SP-Cap

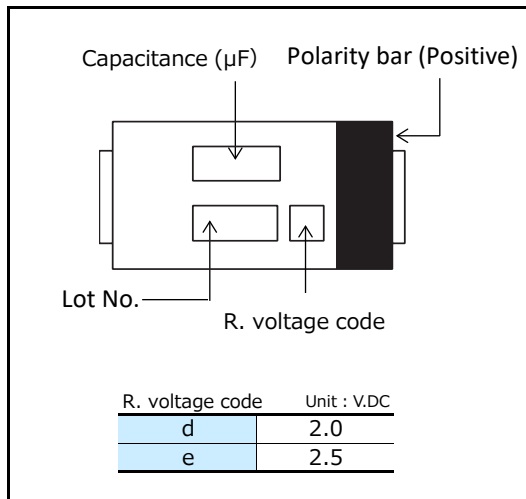
#### Features

- Large capacitance (560  $\mu$ F max.)
- Low ESR (4.5 m $\Omega$ , 6 m $\Omega$  max.)
- Low ESL (3-terminals : 50 % less than 2-terminals)
- High ripple current (8500 mA r.m.s. max.)
- RoHS compliance, Halogen free

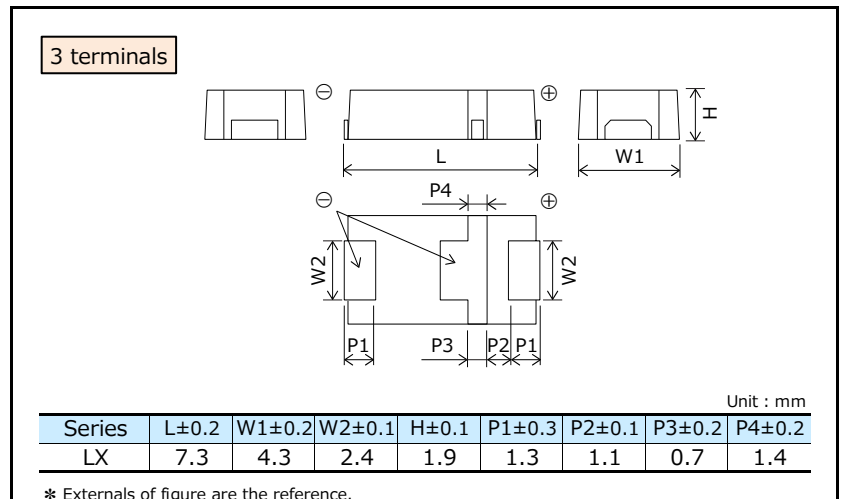
#### Specifications

Series	LX	
Category temp. range	-55 $^{\circ}$ C to +105 $^{\circ}$ C	
Rated voltage range	2.0 V.DC to 2.5 V.DC	
Nominal cap. range	330 $\mu$ F to 560 $\mu$ F	
Capacitance tolerance	$\pm$ 20 % (120 Hz / +20 $^{\circ}$ C)	
DC leakage current	$I \leq 0.1 CV$ ( $\mu$ A) 2 minutes	
Dissipation factor (tan $\delta$ )	$\leq 0.06$ (120 Hz / +20 $^{\circ}$ C)	
Surge voltage (V.DC)	Rated voltage $\times$ 1.25 (15 $^{\circ}$ C to 35 $^{\circ}$ C)	
Endurance	+105 $^{\circ}$ C $\pm$ 2 $^{\circ}$ C, 2000 h, rated voltage applied	
	Capacitance change	Within $\pm$ 20 % of the initial value
	Dissipation factor (tan $\delta$ )	$\leq 2$ times of the initial limit
	DC leakage current	$\leq 3$ times of the initial limit
Damp heat (Steady state)	+60 $^{\circ}$ C, 90 %, 500 h, No-applied voltage	
	Capacitance change of initial measurd value	2.0 V.DC to 2.5 V.DC
		+70 %, -20 %
	Dissipation factor (tan $\delta$ )	$\leq 2$ times of the initial limit
DC leakage current	Within the initial limit	

#### Marking



#### Dimensions (not to scale)



### Characteristics list

Series	Rated voltage (V.DC)	Capacitance (μF)	Case size (mm)			Specification		Part number	Min. Packaging Q'ty* <sup>3</sup> (pcs)
			L	W	H	Ripple current* <sup>1</sup> (mA r.m.s.)	ESR* <sup>2</sup> (mΩ max.)		
LX	2.0	330	7.3	4.3	1.9	7500	6	EEFLX0D331R	3500
			7.3	4.3	1.9	8500	4.5	EEFLX0D331R4	3500
		470	7.3	4.3	1.9	7500	6	EEFLX0D471R	3500
			7.3	4.3	1.9	8500	4.5	EEFLX0D471R4	3500
		560	7.3	4.3	1.9	7500	6	EEFLX0D561R	3500
			7.3	4.3	1.9	8500	4.5	EEFLX0D561R4	3500
	2.5	330	7.3	4.3	1.9	7500	6	EEFLX0E331R	3500
			7.3	4.3	1.9	8500	4.5	EEFLX0E331R4	3500
		470	7.3	4.3	1.9	7500	6	EEFLX0E471R	3500
			7.3	4.3	1.9	8500	4.5	EEFLX0E471R4	3500

\*1: Ripple current (100 kHz / +45 °C)

\*2: ESR (100 kHz / +20 °C)

\*3: Please contact us when 500 pcs packing is necessary.

◆ Please refer to each page in this catalog for "Reflow conditions" and "Taping specifications".

### Temperature coefficient of ripple current

Temperature		T ≤ 45 °C	45 °C < T ≤ 85 °C	85 °C < T ≤ 105 °C
2.0 V.DC to 2.5 V.DC	Coefficient	1.0	0.7	0.25

◆ Ripple current should be controlled so that surface temperature of capacitor does not exceed the category temperature.

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- The switchover date for compliance with the RoHS Directive/REACH Regulations varies depending on the part number or series of our products.
- When you use the inventory of our products for which it is unclear whether those products are compliant with the RoHS Directive/REACH Regulation, please select "Sales Inquiry" in the website inquiry form and contact us.

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