

Surface Mount Type SR,LR,SS,LS,ST,LT series



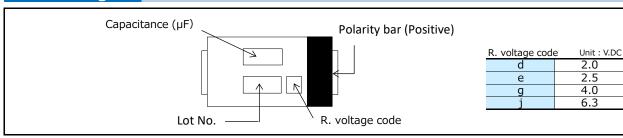
Features

- Low profile (Height 1.0 mm max.)
- Low ESR (4.5 m Ω to 9 m Ω max.)
- Low ESL (3-terminals : 50% less then 2-terminals) [LR, LS, LT series]
- High ripple current (8500 mA r.m.s. max.)
- RoHS compliance, Halogen free

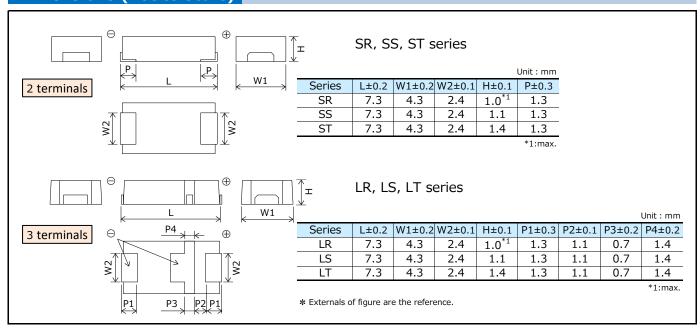
Specifications

Specifications								
Series	SR	LR	SS	LS	ST	LT		
Category temp. range	−55 °C to +105 °C							
Rated voltage range	2.0 V.DC	to 6.3 V.DC	2.0 V.DC to 2.5 V.DC					
Nominal cap. range	68 µF t	ο 220 μF	180 μF to 220 μF 270 μF to 330 μF					
Capacitance tolerance	±20 % (120 Hz / +20 ℃)							
DC leakage current	I ≤ 0.1 CV (μA) 2 minutes							
Dissipation factor (tan δ)	≤ 0.06 (120 Hz / + 20 °C)							
Surge voltage (V.DC)	Rated voltage × 1.25 (15 ℃ to 35 ℃)							
Endurance	$+105~$ °C $\pm~$ 2 °C, 2000 h, rated voltage applied							
	Capacitance change Within ±20 % of the initial value							
	Dissipation factor $(\tan \delta) \le 2$ times of the initial limit							
	DC leakage current ≤ 3 times of the initial limit							
	+60 ℃, 90 %, 500 h, No-applied voltage							
Damp heat (Steady state)	Capacitance	change of 2	2.0 V.DC to 2.5 V.D	C 4.0 V	.DC	6.3 V.DC		
	initial meas		+70 %, -20 %	+60 %,	-20 %	+50 %, -20 %		
	Dissipation factor $(\tan \delta) \le 2$ times of the initial limit							
	DC leakage	current	Within the initial li	nit	•			

Marking



Dimensions (not to scale)



Characteristics list

Series Rated voltage (V.DC) Capacitan			Case size (mm)			Specification		The number of terminals			Min.
		Capacitance (µF)	L	W	Н	Ripple current*1 (mA r.m.s.)	ESR ^{*2} (mΩ max.)	2	3	Part number	Packaging Q'ty ^{*3} (pcs)
	2.0	220	7.3	4.3	1.0 max.	7500	6	0		EEFSR0D221R	3500
	2.0		7.3	4.3	1.0 max.	8500	4.5	0		EEFSR0D221R4	3500
SR	2.5	180	7.3	4.3	1.0 max.	7500	6	0		EEFSR0E181R	3500
SK 2.5	100	7.3	4.3	1.0 max.	8500	4.5	0		EEFSR0E181R4	3500	
4.0		120	7.3	4.3	1.0 max.	6300	9	0		EEFSR0G121R	3500
	6.3	68	7.3	4.3	1.0 max.	6300	9	0		EEFSR0J680R	3500
2.0 LR 2.5 4.0	220	7.3	4.3	1.0 max.	7500	6		0	EEFLR0D221R	3500	
	220	7.3	4.3	1.0 max.	8500	4.5		\circ	EEFLR0D221R4	3500	
	180	7.3	4.3	1.0 max.	7500	6		\circ	EEFLR0E181R	3500	
	100	7.3	4.3	1.0 max.	8500	4.5		\circ	EEFLR0E181R4	3500	
	120	7.3	4.3	1.0 max.	6300	9		0	EEFLR0G121R	3500	
	6.3	68	7.3	4.3	1.0 max.	6300	9		\circ	EEFLR0J680R	3500
SS	2.0 220		7.3	4.3	1.1	7500	6	0		EEFSS0D221R	3500
2.5	180	7.3	4.3	1.1	7500	6	0		EEFSS0E181R	3500	
LS 2.0 2.5	220	7.3	4.3	1.1	7500	6		0	EEFLS0D221R	3500	
	180	7.3	4.3	1.1	7500	6		0	EEFLS0E181R	3500	
ST 2.0 2.5	2.0	330	7.3	4.3	1.4	7500	6	0		EEFST0D331R	3500
	2.5	270	7.3	4.3	1.4	7500	6	0		EEFST0E271R	3500
LT	2.0	330	7.3	4.3	1.4	7500	6		0	EEFLT0D331R	3500
	2.5	270	7.3	4.3	1.4	7500	6		0	EEFLT0E271R	3500

^{*1:} Ripple current (100 kHz / +45 $^{\circ}$ C)

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

	Temperature coefficient o	f ripple current
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Temperature	T ≦ 45 °C	45 °C < T ≦ 85 °C	85 °C < T ≦ 105 °C
2.0 V.DC to 6.3 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.

^{*2:} ESR (100 kHz / +20 ℃)

^{*3:} Please contact us when 500 pcs packing is necessary.



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