NEW

THE POSSIBILITIES ARE INFINITE FUJITSU

Functional Polymer Capacitors FPCAP

Solid Electrolytic Capacitors with Functional Polymer

CS Series Low ESR Type E,E0

♦Features

By using Functional Polymer cathode, Frequency characteristics are greatly improved.

- ESR at a high frequency range.
- High ripple current capability.
- **Lead Free**



♦Applications

- Miniature Switching Power Supply and DC/DC Converter. (Notebook PC and Power Supply of Module.etc.)
- Back up Power Supply of CPU.
- Power Supply of Mobile terminals.

♦Specifications

Items	Characteristics	
Operating Temp. Range	-55 to +105°C	
Max. Operating Temp. at RV	+105°C	
Rated Voltage Range	2.5 to 6.3V•DC	
Capacitance Range	100 to 470 μF	
Capacitance Tolerance	±20% (M)	
Endurance	Condition	105°C 1,000Hrs at rated voltage
	Capacitance	Within ±20% of the value before test
	Leakage Current	Not to exceed the value specified
	tanδ	Not to exceed 150% of the value specified
Resistance to Soldering Heat	240°C 10sec (Reflow)	
Reliability	1% / 1,000Hrs. Max (60%CL)	
Others	JIS-C-5101-3	

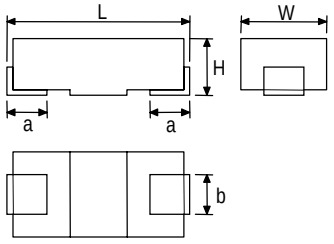
♦Standard Ratings

( ):ESR(mΩ) at 100kHz

R.V. (V) / S.V. (V) / Cap (μF)	2.5 / 3.2	4.0 / 5.2	6.3 / 8.2
100			E0 (18/25)
150		E0 (15/18/25)	E0 (18/25) E (18/25)
220	E0 (12/15/25)	E0 (15/18/25) E (15/25)	E (18/25)
330	E0 (12/15/25) E (12/25)	E (15/25)	
470	E0 (12/15/25) E (12/25)		

Current Products
Release from Mar. 2004
Release from May. 2004

♦Dimensions



Unit:mm
:(inches)

Type	L ±0.2 ±(.008)	W ±0.2 ±(.008)	H ±0.2 ±(.008)	a ±0.2 ±(.008)	b ±0.2 ±(.008)
E0	7.3 (.287)	4.3 (.169)	1.8 (.070)	1.3 (.051)	2.4 (.094)
E	7.3 (.287)	4.3 (.169)	2.9 (.115)	1.3 (.051)	2.4 (.094)

♦Part number & Specifications

Rated voltage (V)	Capacitance (μF)	Part number	Leakage Current (μA)	tanδ (%)	ESR (mΩ,100kHz)	Maximum permissible ripple current (mA, r.m.s.)	Case size L×W×H(mm) L×W×H(inches)
2.5	220	FP-2R5CS221M-E0R012	55.0	10	12	3300	7.3×4.3×1.8
		FP-2R5CS221M-E0R015	55.0	10	15	3000	7.3×4.3×1.8
		FP-2R5CS221M-E0R025	55.0	10	25	2300	7.3×4.3×1.8
	330	FP-2R5CS331M-E0R012	82.5	10	12	3300	7.3×4.3×1.8
		FP-2R5CS331M-E0R015	82.5	10	15	3000	7.3×4.3×1.8
		FP-2R5CS331M-E0R025	82.5	10	25	2300	7.3×4.3×1.8
		FP-2R5CS331M-E R012	82.5	10	12	3500	7.3×4.3×2.9
		FP-2R5CS331M-E R025	82.5	10	25	2500	7.3×4.3×2.9
	470	FP-2R5CS471M-E0R012	117.5	10	12	3300	7.3×4.3×1.8
		FP-2R5CS471M-E0R015	117.5	10	15	3000	7.3×4.3×1.8
		FP-2R5CS471M-E0R025	117.5	10	25	2300	7.3×4.3×1.8
		FP-2R5CS471M-E R012	117.5	10	12	3500	7.3×4.3×2.9
		FP-2R5CS471M-E R025	117.5	10	25	2500	7.3×4.3×2.9
4.0	150	FP-4R0CS151M-E0R015	60.0	10	15	3000	7.3×4.3×1.8
		FP-4R0CS151M-E0R018	60.0	10	18	2700	7.3×4.3×1.8
		FP-4R0CS151M-E0R025	60.0	10	25	2300	7.3×4.3×1.8
	220	FP-4R0CS221M-E0R015	88.0	10	15	3000	7.3×4.3×1.8
		FP-4R0CS221M-E0R018	88.0	10	18	2700	7.3×4.3×1.8
		FP-4R0CS221M-E0R025	88.0	10	25	2300	7.3×4.3×1.8
		FP-4R0CS221M-E R015	88.0	10	15	3200	7.3×4.3×2.9
		FP-4R0CS221M-E R025	88.0	10	25	2500	7.3×4.3×2.9
	330	FP-4R0CS331M-E R015	132.0	10	15	3200	7.3×4.3×2.9
		FP-4R0CS331M-E R025	132.0	10	25	2500	7.3×4.3×2.9
6.3	100	FP-6R3CS101M-E0R018	63.0	10	18	2700	7.3×4.3×1.8
		FP-6R3CS101M-E0R025	63.0	10	25	2300	7.3×4.3×1.8
	150	FP-6R3CS151M-E0R018	94.5	10	18	2700	7.3×4.3×1.8
		FP-6R3CS151M-E0R025	94.5	10	25	2300	7.3×4.3×1.8
		FP-6R3CS151M-E R018	94.5	10	18	2900	7.3×4.3×2.9
		FP-6R3CS151M-E R025	94.5	10	25	2500	7.3×4.3×2.9
	220	FP-6R3CS221M-E R018	138.6	10	18	2900	7.3×4.3×2.9
		FP-6R3CS221M-E R025	138.6	10	25	2500	7.3×4.3×2.9

Current Product, Release from Mar. 2004 , Release from May. 2004

♦Part Number (EX)2.5V220μF, ±20% E0 Type ESR:25mΩ, Taping.

FP	—	2R5	CS	221	M	—	E0	R	025
Community Mark		Rated Voltage	Series Name	Nominal Capacitance	Capacitance Tolerance		Type	Taping Specification R:Taping	Management number

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∗ Design and Specifications are subject to change without notice.
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