

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Panasonic

Surface Mount Type

Series: **FKS** Type: **V**

High temperature Lead-Free reflow



- Features
- Endurance: 2000 h at 105 °C
- 1 size smaller than series FK
- Vibration-proof product is available upon request. (ϕ 8 mm and larger)
- AEC-Q200 qualified*
- RoHS directive compliant

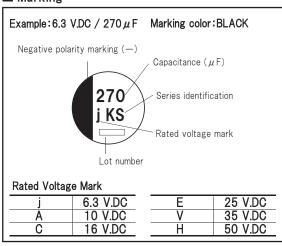
Specifications

Category Temp. Range	-55 ℃ to +105 ℃								
Rated W.V. Range	6.3 V.DC to 50 V.DC								
Nominal Cap. Range	39 μF to 1800 μF								
Capacitance Tolerance	±20 % (120 Hz/+20 ℃)								
DC Leakage Current	$I \le 0.01$ CV or 3 (μ A) After 2 minutes (Whichever is greater)								
tan δ	Please see the attached Standard Products list								
	W.V.(V)	6.3	10	16	25	35	50		
Characteristics at Low Temperature	Z(-25 °C)/Z(+20 °C)	2	2	2	2	2	2	(Impedance ratio at 120Hz)	
	Z(-40 °C)/Z(+20 °C)	3	3	3	3	3	3	(impedance ratio at 120Hz)	
	Z(-55 °C)/Z(+20 °C)	4	4	4	3	3	3		
Endurance	After applying rated working voltage for 2000 hours at $+105^{\circ}\text{C}\pm2^{\circ}\text{C}$ and then being stabilized at $+20^{\circ}\text{C}$, capacitors shall meet the following limits.								
	Capacitance Change ±30 % of initial measured value								
	tan δ	≤ 200 % initial specified value							
	DC Leakage Current	≦ ini	tial spe	ecified	value				
Shelf Life	After storage for 1000 hours at +105 $^{\circ}$ C ±2 $^{\circ}$ C with no voltage applied and then being stabilized at +20 $^{\circ}$ C, capacitors shall meet the limits specified in Endurance. (With voltage treatment)								
Resistance to Soldering Heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.								
	Capacitance Change	Change ±10 % of initial measured value							
	tan δ	≤ initial specified value							
	DC Leakage Current	≤ initial specified value							

Frequency correction factor for ripple current

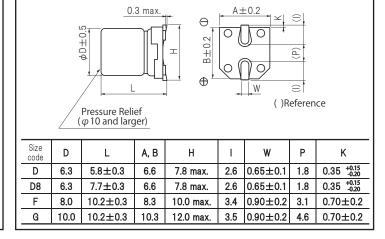
Canacitance (4 E)	Frequency (Hz)							
Capacitance (μF)	120	1k	10k	100k to				
39 to 1800	0.65	0.85	0.95	1.00				

■ Marking



■ Dimensions in mm (not to scale)

Unit:mm



^{*} This product qualify for AEC-Q200, but it has some deviations.

Panasonic

■ Standard Products

■ Standard Products Endurance : 105 °C 2000 h										
			Case size			pecificatio	1			Min. Packaging Q't
Rated voltage	Capacitance (±20 %)		Dia Length	Size code	Ripple current	ESR	tan ∂	tan δ Part No.		
		Dia				(100 kHz) (+20 ℃)	(120 Hz) (+20 ℃)	(RoHS: compliant)	Reflow	Taping
(V.DC)	(μF)	(mm)	(mm)		(mA r.m.s.)	(Ω)				(pcs)
6.3	270	6.3	5.8	D	240	0.36	0.26	EEEFK0J271SP	(5)	1000
	470	6.3	7.7	D8	280	0.34	0.26	EEEFKJ471XSP	(5)	900
	1800	10	10.2	G	850	0.08	0.26	EEEFK0J182SP	(6)	500
10	220	6.3	5.8	D	240	0.36	0.19	EEEFK1A221SP	(5)	1000
	330	6.3	7.7	D8	280	0.34	0.19	EEEFKA331XSP	(5)	900
	820	8	10.2	F	600	0.16	0.19	EEEFK1A821SP	(6)	500
	1200	10	10.2	G	850	0.08	0.19	EEEFK1A122SP	(6)	500
16	150	6.3	5.8	D	240	0.36	0.16	EEEFK1C151SP	(5)	1000
	270	6.3	7.7	D8	280	0.34	0.16	EEEFKC271XSP	(5)	900
	560	8	10.2	F	600	0.16	0.16	EEEFK1C561SP	(6)	500
	1000	10	10.2	G	850	0.08	0.16	EEEFK1C102SP	(6)	500
25	100	6.3	5.8	D	240	0.36	0.14	EEEFK1E101SP	(5)	1000
	150	6.3	7.7	D8	280	0.34	0.14	EEEFKE151XSP	(5)	900
	180	6.3	7.7	D8	280	0.34	0.14	EEEFKE181XSP	(5)	900
	390	8	10.2	F	600	0.16	0.14	EEEFK1E391SP	(6)	500
	680	10	10.2	G	850	0.08	0.14	EEEFK1E681SP	(6)	500
	68	6.3	5.8	D	240	0.36	0.12	EEEFK1V680SP	(5)	1000
	82	6.3	5.8	D	240	0.36	0.12	EEEFK1V820SP	(5)	1000
35	120	6.3	7.7	D8	280	0.34	0.12	EEEFKV121XSP	(5)	900
	270	8	10.2	F	600	0.16	0.12	EEEFK1V271SP	(6)	500
	470	10	10.2	G	850	0.08	0.12	EEEFK1V471SP	(6)	500
50	39	6.3	5.8	D	165	0.88	0.10	EEEFK1H390SP	(5)	1000
	82	6.3	7.7	D8	195	0.68	0.10	EEEFKH820XSP	(5)	900
	180	8	10.2	F	350	0.34	0.10	EEEFK1H181SP	(6)	500
	270	10	10.2	G	670	0.18	0.10	EEEFK1H271SP	(6)	500

[·]Please refer to the page of "Reflow Profile" and "The Taping Dimensions". ·When requesting vibration-proof product, please put the last "V" instead to "P"