KEC75B Series

◆KEC75B Series Rated Capacitance & Rated Voltage Table

Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V
0.5	0R5	A, B, C, D	500 Code 501	3.3	3R3	A, B, C, D	500 Code 501	24	240	F, G, J, K, M	500 Code 501	180	181	F, G, J, K, M	300 Code 301
0.6	0R6			3.6	3R6			27	270			200	201		
0.7	0R7			3.9	3R9			30	300			220	221		200 Code 201
0.8	0R8			4.3	4R3			33	330			240	241		
0.9	0R9			4.7	4R7			36	360			270	271		
1.0	1R0			5.1	5R1			39	390			300	301		
1.1	1R1			5.6	5R6			43	430			330	331		
1.2	1R2			6.2	6R2			47	470			360	361		
1.3	1R3			6.8	6R8			51	510			390	391		
1.4	1R4			7.5	7R5			56	560			430	431		
1.5	1R5			8.2	8R2			62	620			470	471		
1.6	1R6			9.1	9R1			68	680			510	511		100 Code 101
1.7	1R7			10	100	F, G, J, K, M		75	750			560	561		
1.8	1R8			11	110			82	820			620	621		
1.9	1R9			12	120			91	910			680	681		50 Code 500
2.0	2R0			13	130			100	101			750	751		
2.1	2R1			15	150			110	111		300 Code 301	820	821		
2.2	2R2			16	160			120	121			910	911		
2.4	2R4			18	180			130	131			1000	102		
2.7	2R7			20	200			150	151						
3.0	3R0			22	220			160	161						

Remark: special capacitance, tolerances and WVDC are available, consult with KETE.

◆Performance

Quality Factor (Q)	2,000 min.
Insulation Resistance (IR)	10^5 Megohms min. @ +25℃ at rated WVDC. 10^4 Megohms min. @ +125℃ at rated WVDC.
Rated Voltage	250V
Dielectric Withstanding Voltage(DWV)	250% of rated Voltage for 5 seconds.
Operating Temperature Range	−55℃ to +125℃
Temperature Coefficient (TC)	0 ± 30ppm/℃
Capacitance Drift	± 0.02% or ± 0.02pF, whichever is greater.
Piezoelectric Effects	None

◆Environmental Tests

Item	Specifications	Method
Terminal Adhesion	Termination should not pull off, Ceramic should remain undamaged.	Linear pull force exerted on axial leads soldered to each terminal. 2.0lbs.
Resistance to soldering heat	No mechanical damage Capacitance change: − 1.0% ～+2.0% Q>500 I.R. >10 G Ohms Breakdown voltage: 2.5 x WVDC	Preheat device to 150°C-180°C for 60 sec. Dip in 260°±5°C solder for 10±1 sec. Measure after 24±2 hour cooling period
Thermal shock	No mechanical damage Capacitance change:±0.5% or 0.5pF max Q>500 I.R. >10 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature(-55°C and 125°C) stay 30 minutes, The time of removing shall be not more than 3 minutes. Perform the five cycles.
Humidity, Steady state	No mechanical damage Capacitance change: ±0.5% or 0.5pF max. Q>300 I.R. >1 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 106.
Low voltage humidity	No mechanical damage Capacitance change: ±0.3% or 0.3pF max. Q>300 I.R. >1 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 103, Condition A, with 1.5 Volts D.C. applied while subjected to an environment of 85°C with 85% relative humidity for 240 hours min.
Life	No mechanical damage Capacitance change: ±2.0% or 0.5pF max. Q>500 I.R. >1 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 108, for 1000 hours, at 125°C. 200% Rated voltage D.C. applied.

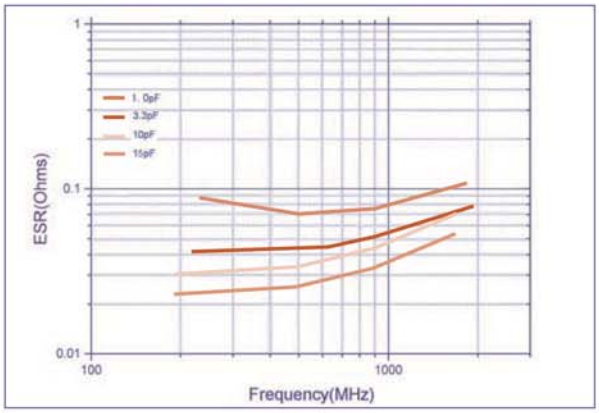
◆KEC75B Chip Dimensions

unit:inch(millimeter)

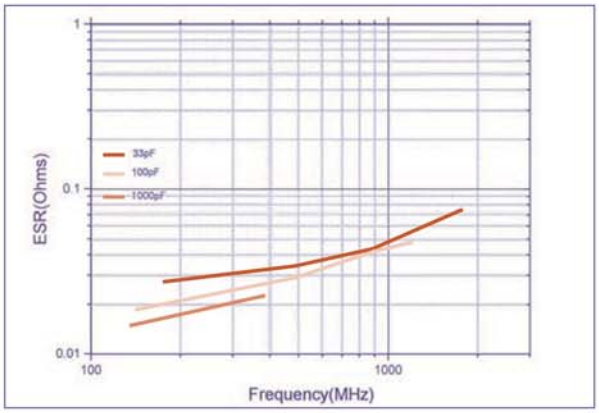
	Length	Width	Thickness
KEC75B Chip Dimensions	0.110+.025~−.010 (2.79+0.51~ −0.25)	.110 ± .010 (2.79 ± 0.25)	.10(2.6)max

◆KEC75B Performance Curve

ESR VS Frequency



ESR VS Frequency



Series Resonant Frequency VS Capacitor