COMPONENT SPECIFICATION

SERIES NAME	Interference Suppression Capacitors Class Y2
SERIES CODE	33

GIVEN BY: DEKI ELECTRONICS LTD

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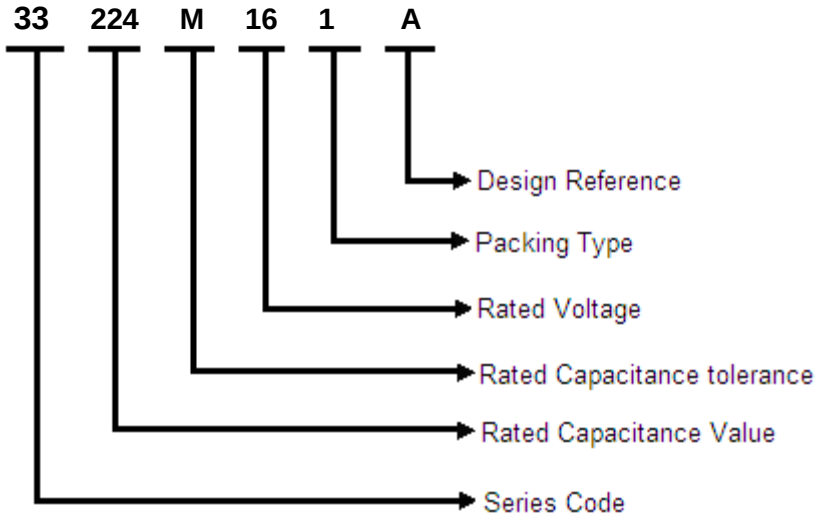
Interference Suppression Capacitors

Class Y2 • Series Code 33

Part Number Description



Rated Capacitance

Three-digit (224) indicate rated capacitance in Pico Farad (First two digits indicate value & third digit indicates number of zeroes to be suffixed to first two digits).

For example:

103 = 10 ×	10^3	= 10000 pF	=	10 nF	=0.01 µF
104 = 10 ×	10^4	= 100000 pF	=	100 nF	=0.1 µF
105 = 10 ×	10^5	= 1000000 pF	=	1000 nF	=1 µF
106 = 10 ×	10^6	= 10000000 pF	=	10000 nF	=10 µF

Capacitance Tolerance

In 3rd group of the part number

F = ±1%, G = ±2%, H = ±2.5%, I = ±3.5%, J = ±5%, K = ±10%, L = ±15%, M = ±20%, N=±40%

Rated Voltage

In 4th group of the part number, one numeric digit and one letter (Ex.-2A) indicate DC voltage rating while two numeric digits (Ex.16) indicate AC voltage rating.

Rated Voltage Codification

For DC Rated Voltage													
A		B		C		D		E		F		G	
1A	10	1B	12.5	1C	16	1D	20	1E	25	1F	30	1G	40
2A	100	2B	125	2C	160	2D	200	2E	250	2F	300	2G	400
3A	1000	3B	1250	3C	1600	3D	2000	3E	2500	3F	3000	3G	4000
H		I		J		K		L		M		N	
1H	50	1I	45	1J	63	1K	70	1L	80	1M	85	1N	90
2H	500	2I	450	2J	630	2K	700	2L	800	2M	850	2N	900
3H	5000	3I	4500	3J	6300	3K	7000	3L	8000	3M	8500	3N	9000
O		P		Q		R		S		U		V	
1O	110	1P	120	1Q	57.5	1R	15	1S	17	1U	130	1V	60
2O	1100	2P	1200	2Q	575	2R	150	2S	170	2U	1300	2V	600
3O	11000	3P	12000	3Q	5750	3R	1500	3S	1700	3U	13000	3V	6000
For AC Rated Voltage													
01	02	03	04	05	06	07	08	09	10	11	12	13	16
190 VAC	250 VAC	275 VAC	305 VAC	310 VAC	440 VAC	500 VAC	600 VAC	700 VAC	63 VAC	230 VAC	330 VAC	400 VAC	300 VAC

Packing Type

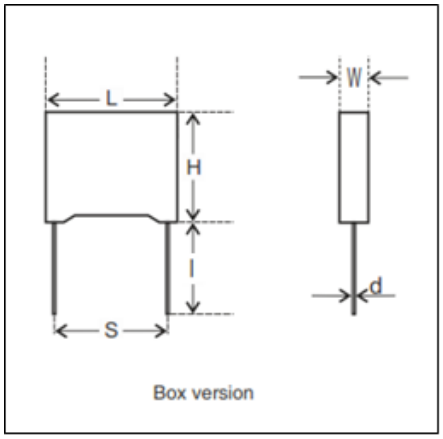
1: Bulk packing (original pitch)
2: Bulk packing (after forming & cutting)
3: Ammo packing (after forming & taping)
4: Bulk packing (after forming in original pitch without cut)
5: Bulk packing (after formed & without cut)
6: Ammo packing (Straight lead)
7: Bulk packing (Straight lead cut)
8: Reel packing (Straight lead)

Reference Data

Capacitance	0.001µF to 1µF
Capacitance tolerance	±10% and ±20%
Rated AC voltage at 50/60 Hz	300Vac
Climatic testing class according to IEC 60068-1	40/105/56/B
Maximum application temperature	105°C
Rated temperature	85°C
Reference standard	IEC 60384-14
Dielectric	Polypropylene
Electrodes	Metallized
Construction	Mono
Encapsulation	Incased in flame retardant box filled with resin
Leads	Tinned wire
Marking on capacitor body	Type of capacitor, rated capacitance, rated tolerance, and rated voltage will be available on each and every capacitor. Example- IS/MKP Y2 /D224M/300VAC
Compatibility to RoHS	RoHS

*This series is designed to use in "line to ground" applications.

Dimensions Description



Box version

Rated Capacitance (μF)	Dimensions (mm) L (±0.5)	H (±0.5)	W (±0.5)	S	d (±0.05)	I	Part Number
0.001	10.5	10	5	7.5±0.75	0.6	15 Min.	33 102 M 16 1 B
0.001	10.5	8	4	7.5±0.75	0.6	15 Min.	33 102 M 16 1 C
0.001	13	9	4	10±0.75	0.6	15 Min.	33 102 M 16 1 A
0.0015	10.5	8	4	7.5±0.75	0.6	15 Min.	33 152 M 16 1 A
0.0015	10.5	11	5	7.5±0.75	0.6	15 Min.	33 152 M 16 1 B
0.0015	13	9	4	10±0.75	0.6	15 Min.	33 152 M 16 1 C
0.0018	10.5	9	4	7.5±0.75	0.6	15 Min.	33 182 M 16 1 A
0.0018	13	9	4	10±0.75	0.6	15 Min.	33 182 M 16 1 B
0.0018	18	9	4	15±0.75	0.6	15 Min.	33 182 M 16 1 C
0.0022	10.5	9	4	7.5±0.75	0.6	15 Min.	33 222 M 16 1 B
0.0022	13	9	4	10±0.75	0.6	15 Min.	33 222 M 16 1 A
0.0022	13	11	5	10±0.75	0.6	15 Min.	33 222 K 16 1 A
0.0022	18	9	4	15±0.75	0.6	15 Min.	33 222 M 16 1 C
0.0027	10.5	10	5	7.5±0.75	0.6	15 Min.	33 272 M 16 1 A
0.0027	13	9	4	10±0.75	0.6	15 Min.	33 272 M 16 1 B
0.0027	18	9	4	15±0.75	0.6	15 Min.	33 272 M 16 1 C
0.0033	13	11	5	10±0.75	0.6	15 Min.	33 332 M 16 1 A
0.0047	10.5	12	6	7.5±0.75	0.6	15 Min.	33 472 M 16 1 C
0.0047	13	11	5	10±0.75	0.6	15 Min.	33 472 M 16 1 B
0.0047	18	11	5	15±0.75	0.6	15 Min.	33 472 M 16 1 A
0.0056	13	11	5	10±0.75	0.6	15 Min.	33 562 M 16 1 A
0.0056	13	12	6	10±0.75	0.6	15 Min.	33 562 M 16 1 B
0.0056	18	12	6	15±0.75	0.6	15 Min.	33 562 M 16 1 C
0.0068	13	12	6	10±0.75	0.6	15 Min.	33 682 M 16 1 A
0.0068	13	12	6	10±0.75	0.6	15 Min.	33 682 K 16 1 A
0.0068	18	11	5	15±0.75	0.6	15 Min.	33 682 M 16 1 B
0.0068	18	9	4	15±0.75	0.6	15 Min.	33 682 M 16 1 C
0.0075	13	12	6	10±0.75	0.6	15 Min.	33 752 M 16 1 A
0.0075	18	9	4	15±0.75	0.6	15 Min.	33 752 M 16 1 B
0.0075	18	11	5	15±0.75	0.6	15 Min.	33 752 M 16 1 C
0.0082	13	12	6	10±0.75	0.6	15 Min.	33 822 M 16 1 A
0.0082	18	9	4	15±0.75	0.6	15 Min.	33 822 M 16 1 B
0.0082	18	11	5	15±0.75	0.6	15 Min.	33 822 M 16 1 C
0.01	13	12.5	6.5	10±0.75	0.6	15 Min.	33 103 M 16 1 B
0.01	18	11	5	15±0.75	0.6	15 Min.	33 103 M 16 1 A
0.01	18	11	5	15±0.75	0.6	15 Min.	33 103 M 16 1 S
0.015	13	20	10	10±0.75	0.6	15 Min.	33 153 M 16 1 A
0.015	18	11	5	15±0.75	0.6	15 Min.	33 153 M 16 1 B
0.022	18	12	6	15±0.75	0.6	15 Min.	33 223 M 16 1 A
0.022	18	13	7	15±0.75	0.6	15 Min.	33 223 M 16 1 B
0.022	18	14	8	15±0.75	0.8	15 Min.	33 223 M 16 1 D

0.022	26	15	6	22.5±1.0	0.6	15 Min.	33 223 M 16 1 C
0.022	18	12	6	15±0.75	0.6	15 Min.	33 223 M 16 1 S
0.033	18	13.5	7.5	15±0.75	0.6	15 Min.	33 333 M 16 1 A
0.033	26	15	6	22.5±1.0	0.6	15 Min.	33 333 M 16 1 B
0.033	26	16	7	22.5±1.0	0.6	15 Min.	33 333 M 16 1 C
0.047	18	15	8.5	15±0.75	0.8	15 Min.	33 473 M 16 1 B
0.047	26	15	6	22.5±1.0	0.6	15 Min.	33 473 M 16 1 A
0.068	18	16	10	15±0.75	0.8	15 Min.	33 683 M 16 1 A
Rated	**Dimensions (mm)**						**Part Number**
Capacitance (µF)	**L (±0.5)**	**H (±0.5)**	**W (±0.5)**	**S**	**d (±0.05)**	**I**	
0.068	26	16	7	22.5±1.0	0.6	15 Min.	33 683 M 16 1 B
0.068	31	18	9	27.5±1.0	0.8	15 Min.	33 683 M 16 1 C
0.075	18	19	11	15±0.75	0.8	15 Min.	33 753 M 16 1 A
0.075	26	17	8.5	22.5±1.0	0.8	15 Min.	33 753 M 16 1 B
0.075	31	18	9	27.5±1.0	0.8	15 Min.	33 753 M 16 1 C
0.082	18	19	11	15±0.75	0.8	15 Min.	33 823 M 16 1 A
0.082	26	17	8.5	22.5±1.0	0.8	15 Min.	33 823 M 16 1 B
0.082	31	18	9	27.5±1.0	0.8	15 Min.	33 823 M 16 1 C
0.1	18	25	14	15±0.75	0.8	15 Min.	33 104 M 16 1 D
0.1	26	17	8.5	22.5±1.0	0.8	15 Min.	33 104 M 16 1 A
0.1	26	22	12	22.5±1.0	0.8	15 Min.	33 104 M 16 1 C
0.1	31	20	11	27.5±1.0	0.8	15 Min.	33 104 M 16 1 B
0.15	26	20	11	22.5±1.0	0.8	15 Min.	33 154 M 16 1 A
0.15	31	20	11	27.5±1.0	0.8	15 Min.	33 154 M 16 1 B
0.18	26	20	11	22.5±1.0	0.8	15 Min.	33 184 M 16 1 A
0.18	31	20	11	27.5±1.0	0.8	15 Min.	33 184 M 16 1 B
0.22	26	22	12	22.5±1.0	0.8	15 Min.	33 224 M 16 1 A
0.22	31	20	11	27.5±1.0	0.8	15 Min.	33 224 M 16 1 B
0.22	41.5	24	12	37.5±1.5	0.8	15 Min.	33 224 M 16 1 C
0.27	26	30	18	22.5±1.0	0.8	15 Min.	33 274 M 16 1 A
0.27	31	22	13	27.5±1.0	0.8	15 Min.	33 274 M 16 1 B
0.27	41.5	24	12	37.5±1.5	0.8	15 Min.	33 274 M 16 1 C
0.33	26	32	20	22.5±1.0	0.8	15 Min.	33 334 M 16 1 A
0.33	31	22	13	27.5±1.0	0.8	15 Min.	33 334 M 16 1 B
0.33	41.5	24	12	37.5±1.5	0.8	15 Min.	33 334 M 16 1 C
0.33	26	27	16	22.5±1.0	0.8	15 Min.	33 334 M 16 1 D
0.47	31	26	18	27.5±1.0	0.8	15 Min.	33 474 M 16 1 A
0.47	41.5	24	12	37.5±1.5	0.8	15 Min.	33 474 M 16 1 B
0.56	31	26	18	27.5±1.0	0.8	15 Min.	33 564 M 16 1 A
0.56	41.5	26	15	37.5±1.5	0.8	15 Min.	33 564 M 16 1 B
0.68	31	37	22	27.5±1.0	0.8	15 Min.	33 684 M 16 1 A
0.68	41.5	26	15	37.5±1.5	0.8	15 Min.	33 684 M 16 1 B
0.82	41.5	30	16	37.5±1.5	0.8	15 Min.	33 824 M 16 1 A
1	42	40	20	37.5±1.5	1	15 Min.	33 105 M 16 1 A
1	41.5	45	25	37.5±1.5	1	15 Min.	33 105 M 16 1 B
1	32	37	22	27.5±1.0	0.8	15 Min.	33 105 M 16 1 C

Specific Data

Description	Value	
Maximum tangent of loss angle(Tanδ)	0.003 at 1 kHz	
Voltage proof test between leads	7.5 times of the rated voltage value DC for 2 second	
Voltage proof test between leads and case	2 times of rated voltage+1500VAC with a minimum 2000 VAC for 2 second	
Insulation Resistance (R_{IS})	C_R≤0.33 µF	C_R>0.33 µF
(or) time constant T= C_R × R_{IS}	≥15000 MΩ	≥5000 s
at 25° C, relative humidity ≤70%		

Criteria of the voltage proof test:-
During the voltage proof test no permanent break down or flash over during the test period

Endurance Test

Loaded at 1.7 times of rated voltage at 105˚C for 1000 hours with once per hour voltage increased to 1000Vrms for 0.1 second. These voltages shall be applied to each capacitor individually through a resistor of 47Ω ± 5%.

After The Test
ΔC/C : ≤ 10% of initial value.
Increase of Tan δ : ≤ 0.008 at 10 kHz for C_R ≤1.0µF; ≤ 0.005 at 1 kHz for C_R >1.0µF;
Insulation Resistance : ≥ 50% of the value mentioned in specific data.

Storage Conditions

Avoid storing the capacitors in places where the environmental conditions differ from the following:
Storage time: ≤ 24 months from the date marked on the label glued to the package.

- Temperature: -40 to 80°C
- Humidity:

  - Average per year: ≤70%
  - For 30 full days randomly distributed throughout the year: ≤85%
  - Dew: absent

After a longer period of storage or use, the tolerance can increase; but, according to standard specification, it may never exceed twice the value measured at the time of delivery.

Disclaimer

All our capacitors are designed, manufactured and tested to specifications. We strictly adhere to standards in procurement of materials, in the laid down manufacturing processes and consistently apply stringent process controls and testing parameters. This ensures that our capacitors always perform to the offered specifications.
Appropriateness of use in a specific circuit and fitness to a particular application however needs to be verified and its reliability through expected lifetime is required to be validated by the customer. Deki's responsibility is limited to ensuring that the capacitor performs as claimed in the specification/ data sheets provided by Deki. Deki specifically disclaims any implied warranties of fitness for any particular purpose. Liability, in any case is limited to the price paid for the capacitors.