

Microwave Components

High-Frequency Monolithic Ceramic Capacitors

High Frequency for Flow/Reflow Soldering

Part Number	GQM18		GQM21	
L x W(mm)	1.60x0.80		2.00x1.25	
TC Code	C0G		C0G	
Rated Volt.(Vdc)	50	100	50	100
Capacitance and T(mm)				
0.5pF		0.80		0.85
0.75pF		0.80		0.85
1.0pF		0.80		0.85
1.1pF		0.80		0.85
1.2pF		0.80		0.85
1.3pF		0.80		0.85
1.5pF		0.80		0.85
1.6pF		0.80		0.85
1.8pF		0.80		0.85
2.0pF		0.80		0.85
2.2pF		0.80		0.85
2.4pF		0.80		0.85
2.7pF		0.80		0.85
3.0pF		0.80		0.85
3.3pF		0.80		0.85
3.6pF		0.80		0.85
3.9pF		0.80		0.85
4.0pF		0.80		0.85
4.3pF		0.80		0.85
4.7pF		0.80		0.85
5.0pF		0.80		0.85
5.1pF		0.80		0.85
5.6pF		0.80		0.85
6.0pF		0.80		0.85
6.2pF		0.80		0.85
6.8pF		0.80		0.85
7.0pF	0.80			0.85
7.5pF	0.80			0.85
8.0pF	0.80			0.85
8.2pF	0.80			0.85
9.0pF	0.80			0.85
9.1pF	0.80			0.85
10.0pF	0.80			0.85
11pF	0.80			0.85
12pF	0.80			0.85
13pF	0.80			0.85
15pF	0.80			0.85
16pF	0.80			0.85
18pF	0.80			0.85
20pF	0.80		0.85	
22pF	0.80		0.85	
24pF	0.80		0.85	
27pF			0.85	
30pF			0.85	
33pF			0.85	
36pF			0.85	
39pF			0.85	
43pF			0.85	
47pF			0.85	

Microwave Components


High-Frequency Monolithic Ceramic Capacitors

High-Q & High Power Type

Part Number	ERF1D	ERF22					ERH1X	ERH3X				
L x W(mm)	1.40x1.40	2.80x2.80					1.60x1.40	3.20x2.80				
TC Code	C0G	C0G					C0G	C0G				
Rated Volt.(Vdc)	50	50	100	200	300	500	50	50	100	200	300	500
Capacitance and T(mm)												
0.5pF	1.20					2.40	1.60					3.00
0.6pF	1.20					2.40	1.60					3.00
0.7pF	1.20					2.40	1.60					3.00
0.8pF	1.20					2.40	1.60					3.00
0.9pF	1.20					2.40	1.60					3.00
1.0pF	1.20					2.40	1.60					3.00
1.1pF	1.20					2.40	1.60					3.00
1.2pF	1.20					2.40	1.60					3.00
1.3pF	1.20					2.40	1.60					3.00
1.4pF	1.20					2.40	1.60					3.00
1.5pF	1.20					2.40	1.60					3.00
1.6pF	1.20					2.40	1.60					3.00
1.7pF	1.20					2.40	1.60					3.00
1.8pF	1.20					2.40	1.60					3.00
1.9pF	1.20					2.40	1.60					3.00
2.0pF	1.20					2.40	1.60					3.00
2.1pF	1.20					2.40	1.60					3.00
2.2pF	1.20					2.40	1.60					3.00
2.4pF	1.20					2.40	1.60					3.00
2.7pF	1.20					2.40	1.60					3.00
3.0pF	1.20					2.40	1.60					3.00
3.3pF	1.20					2.40	1.60					3.00
3.6pF	1.20					2.40	1.60					3.00
3.9pF	1.20					2.40	1.60					3.00
4.3pF	1.20					2.40	1.60					3.00
4.7pF	1.20					2.40	1.60					3.00
5.1pF	1.20					2.40	1.60					3.00
5.6pF	1.20					2.40	1.60					3.00
6.2pF	1.20					2.40	1.60					3.00
6.8pF	1.20					2.40	1.60					3.00
7.5pF	1.20					2.40	1.60					3.00
8.2pF	1.20					2.40	1.60					3.00
9.1pF	1.20					2.40	1.60					3.00
10.0pF	1.20					2.40	1.60					3.00
11pF	1.20					2.40	1.60					3.00
12pF	1.20					2.40	1.60					3.00
13pF	1.20					2.40	1.60					3.00
15pF	1.20					2.40	1.60					3.00
16pF	1.20					2.40	1.60					3.00
18pF	1.20					2.40	1.60					3.00
20pF	1.20					2.40	1.60					3.00
22pF	1.20					2.40	1.60					3.00
24pF	1.20					2.40	1.60					3.00
27pF	1.20					2.40	1.60					3.00
30pF	1.20					2.40	1.60					3.00
33pF	1.20					2.40	1.60					3.00
36pF	1.20					2.40	1.60					3.00
39pF	1.20					2.40	1.60					3.00
43pF	1.20					2.40	1.60					3.00
47pF	1.20					2.40	1.60					3.00
51pF	1.20					2.40	1.60					3.00

Microwave Components

8

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Microwave Components

Continued from the preceding page.

Part Number	ERF1D	ERF22					ERH1X	ERH3X				
L x W(mm)	1.40x1.40	2.80x2.80					1.60x1.40	3.20x2.80				
TC Code	COG	COG					COG	COG				
Rated Volt.(Vdc)	50	50	100	200	300	500	50	50	100	200	300	500
Capacitance and T(mm)												
56pF	1.20						2.40	1.60				3.00
62pF	1.20						2.40	1.60				3.00
68pF	1.20						2.40	1.60				3.00
75pF	1.20						2.40	1.60				3.00
82pF	1.20						2.40	1.60				3.00
91pF	1.20						2.40	1.60				3.00
100pF	1.20						2.40	1.60				3.00
110pF					2.40							3.00
120pF					2.40							3.00
130pF					2.40							3.00
150pF					2.40							3.00
160pF					2.40							3.00
180pF					2.40							3.00
200pF					2.40							3.00
220pF				2.40							3.00	
240pF				2.40							3.00	
270pF				2.40							3.00	
300pF				2.40							3.00	
330pF				2.40							3.00	
360pF				2.40							3.00	
390pF				2.40							3.00	
430pF				2.40							3.00	
470pF				2.40							3.00	
510pF			2.40							3.00		
560pF			2.40							3.00		
620pF			2.40							3.00		
680pF			2.40							3.00		
750pF		2.40							3.00			
820pF		2.40							3.00			
910pF		2.40							3.00			
1000pF		2.40							3.00			

Microwave Components

8

High-Frequency Monolithic Ceramic Capacitors

High Frequency Type

Part Number	ERA11			ERA21			ERA32			ERD32		
L x W(mm)	1.25x1.00			2.00x1.25			3.20x2.50			4.00x3.00		
TC Code	COG			COG			COG			COG		
Rated Volt.(Vdc)	50	100	200	50	100	200	50	100	200	50	100	200
Capacitance and T(mm)												
0.5pF			1.20						1.90			2.30
0.6pF			1.20						1.90			2.30
0.7pF			1.20						1.90			2.30
0.8pF			1.20						1.90			2.30
0.9pF			1.20						1.90			2.30
1.0pF			1.20						1.90			2.30
1.1pF			1.20						1.90			2.30
1.2pF			1.20						1.90			2.30
1.3pF			1.20						1.90			2.30
1.4pF			1.20						1.90			2.30
1.5pF			1.20						1.90			2.30

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Microwave Components

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Part Number	ERA11			ERA21			ERA32			ERD32		
L x W(mm)	1.25x1.00			2.00x1.25			3.20x2.50			4.00x3.00		
TC Code	C0G			C0G			C0G			C0G		
Rated Volt.(Vdc)	50	100	200	50	100	200	50	100	200	50	100	200
Capacitance and T(mm)												
1.6pF			1.20			1.45			1.90			2.30
1.7pF			1.20			1.45			1.90			2.30
1.8pF			1.20			1.45			1.90			2.30
1.9pF			1.20			1.45			1.90			2.30
2.0pF			1.20			1.45			1.90			2.30
2.1pF			1.20			1.45			1.90			2.30
2.2pF			1.20			1.45			1.90			2.30
2.4pF			1.20			1.45			1.90			2.30
2.7pF			1.20			1.45			1.90			2.30
3.0pF			1.20			1.45			1.90			2.30
3.3pF			1.20			1.45			1.90			2.30
3.6pF			1.20			1.45			1.90			2.30
3.9pF			1.20			1.45			1.90			2.30
4.3pF			1.20			1.45			1.90			2.30
4.7pF			1.20			1.45			1.90			2.30
5.1pF			1.20			1.45			1.90			2.30
5.6pF			1.20			1.45			1.90			2.30
6.2pF			1.20			1.45			1.90			2.30
6.8pF			1.20			1.45			1.90			2.30
7.5pF			1.20			1.45			1.90			2.30
8.2pF			1.20			1.45			1.90			2.30
9.1pF			1.20			1.45			1.90			2.30
10pF			1.20			1.45			1.90			2.30
11pF			1.20			1.45			1.90			2.30
12pF			1.20			1.45			1.90			2.30
13pF			1.20			1.45			1.90			2.30
15pF		1.20				1.45			1.90			2.30
16pF		1.20				1.45			1.90			2.30
18pF		1.20				1.45			1.90			2.30
20pF		1.20				1.45			1.90			2.30
22pF		1.20				1.45			1.90			2.30
24pF	1.20					1.45			1.90			2.30
27pF	1.20					1.45			1.90			2.30
30pF	1.20					1.45			1.90			2.30
33pF	1.20					1.45			1.90			2.30
36pF	1.20					1.45			1.90			2.30
39pF	1.20					1.45			1.90			2.30
43pF	1.20					1.45			1.90			2.30
47pF	1.20					1.45			1.90			2.30
51pF	1.20					1.45			1.90			2.30
56pF					1.45				1.90			2.30
62pF					1.45				1.90			2.30
68pF					1.45				1.90			2.30
75pF					1.45				1.90			2.30
82pF					1.45				1.90			2.30
91pF					1.45				1.90			2.30
100pF				1.45					1.90			2.30
110pF				1.45					1.90			2.30
120pF				1.45					1.90			2.30
130pF				1.45					1.90			2.30
150pF				1.45					1.90			2.30
160pF				1.45					1.90			2.30
180pF								1.90			2.30	

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Microwave Components

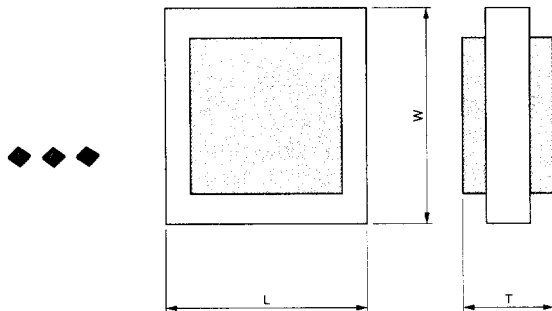
Microwave Components

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Part Number	ERA11			ERA21			ERA32			ERD32		
L x W(mm)	1.25x1.00			2.00x1.25			3.20x2.50			4.00x3.00		
TC Code	C0G			C0G			C0G			C0G		
Rated Volt.(Vdc)	50	100	200	50	100	200	50	100	200	50	100	200
Capacitance and T(mm)												
200pF								1.90			2.30	
220pF								1.90			2.30	
240pF								1.90			2.30	
270pF								1.90			2.30	
300pF								1.90			2.30	
330pF								1.90			2.30	
360pF								1.90			2.30	
390pF								1.90			2.30	
430pF								1.90			2.30	
470pF								1.90			2.30	
510pF								1.90			2.30	
560pF							1.90			2.30		
620pF							1.90			2.30		
680pF							1.90			2.30		
750pF							1.90			2.30		
820pF							1.90			2.30		
910pF							1.90			2.30		
1000pF							1.90			2.30		

High-Frequency Microchip Capacitors

● Temperature Compensating Type



Part Number	Capacitance at 25°C	Temperature Coefficient	Rated Voltage (Vdc)
CLB0A	0.1pF	0±30ppm/°C	100
CLB0C	0.2pF	0±30ppm/°C	100
CLB0D	0.2pF	0±30ppm/°C	100
CLB0E	0.5pF	0±30ppm/°C	100
CLB0H	0.7pF	0±30ppm/°C	100
CLB05	0.3pF	0±30ppm/°C	100
CLB0G	0.7pF to 1.0pF	0±30ppm/°C	100
CLB0F	0.3pF to 1.0pF	0±30ppm/°C	100
CLB1A	1.1pF	0±30ppm/°C	100
CLB0J	0.4pF to 1.0pF	0±30ppm/°C	100
CLB1B	1.5pF to 2.0pF	0±30ppm/°C	100
CLB09	0.5pF to 1.0pF	0±30ppm/°C	100
CLB1E	2.0pF	0±30ppm/°C	100

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Microwave Components

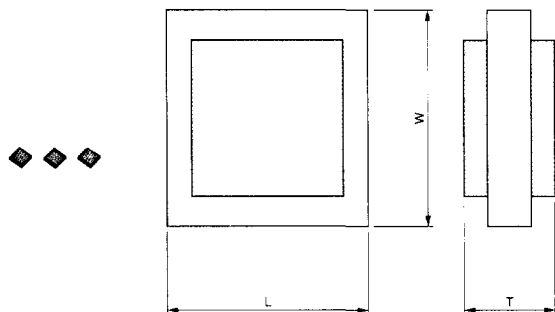
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Part Number	Capacitance at 25°C	Temperature Coefficient	Rated Voltage (Vdc)
CLB1C	1.0pF to 3.0pF	0±30ppm/°C	100
CLB1G	3.9pF to 4.3pF	0±30ppm/°C	100
CLB2C	5.1pF	0±30ppm/°C	100
CLB1H	1.8pF to 6.2pF	0±30ppm/°C	100
CLB2L	7.5pF to 10pF	0±30ppm/°C	100
CLB2E	3.0pF to 10pF	0±30ppm/°C	100
CLB3G	11pF to 16pF	0±30ppm/°C	100
CLB0A	0.3pF	-750±60ppm/°C	100
CLB0B	0.8pF	-750±60ppm/°C	100
CLB0C	0.9pF	-750±60ppm/°C	100
CLB0D	0.9pF to 1.0pF	-750±60ppm/°C	100
CLB0E	1.8pF to 2.0pF	-750±60ppm/°C	100
CLB0H	2.7pF	-750±60ppm/°C	100
CLB05	0.7pF	-750±60ppm/°C	100
CLB05	1.0pF to 2.0pF	-750±60ppm/°C	100
CLB0G	2.7pF to 3.0pF	-750±60ppm/°C	100
CLB0F	2.0pF to 4.3pF	-750±60ppm/°C	100
CLB1A	4.7pF to 6.2pF	-750±60ppm/°C	100
CLB0J	3.0pF to 6.2pF	-750±60ppm/°C	100
CLB1B	6.8pF to 7.5pF	-750±60ppm/°C	100
CLB0K	1.5pF	-750±60ppm/°C	100
CLB09	3.0pF	-750±60ppm/°C	100
CLB09	3.3pF to 6.2pF	-750±60ppm/°C	100
CLB1E	7.5pF to 9.1pF	-750±60ppm/°C	100
CLB1C	7.5pF to 15pF	-750±60ppm/°C	100
CLB1G	16pF to 20pF	-750±60ppm/°C	100
CLB1H	13pF to 27pF	-750±60ppm/°C	100
CLB2L	30pF to 39pF	-750±60ppm/°C	100
CLB2E	20pF to 43pF	-750±60ppm/°C	100
CLB3G	47pF to 56pF	-750±60ppm/°C	100
CLB0A	0.8pF to 1.0pF	-2200±500ppm/°C	100
CLB0B	1.5pF	-2200±500ppm/°C	100
CLB0C	1.8pF	-2200±500ppm/°C	100
CLB0D	1.8pF to 3.0pF	-2200±500ppm/°C	100
CLB0E	3.3pF to 4.3pF	-2200±500ppm/°C	100
CLB0H	4.7pF to 5.1pF	-2200±500ppm/°C	100
CLB05	1.5pF	-2200±500ppm/°C	100
CLB05	2.2pF to 4.3pF	-2200±500ppm/°C	100
CLB0G	5.1pF	-2200±500ppm/°C	100
CLB0F	3.6pF to 7.5pF	-2200±500ppm/°C	100
CLB1A	8.2pF to 11pF	-2200±500ppm/°C	100
CLB0J	5.6pF to 11pF	-2200±500ppm/°C	100
CLB1B	12pF to 15pF	-2200±500ppm/°C	100
CLB0K	3.0pF	-2200±500ppm/°C	100
CLB09	5.9pF	-2200±500ppm/°C	100
CLB09	6.2pF to 13pF	-2200±500ppm/°C	100
CLB1E	15pF to 18pF	-2200±500ppm/°C	100
CLB1C	15pF to 27pF	-2200±500ppm/°C	100
CLB1G	30pF to 36pF	-2200±500ppm/°C	100
CLB1H	27pF to 47pF	-2200±500ppm/°C	100
CLB2L	51pF to 75pF	-2200±500ppm/°C	100
CLB2E	39pF to 75pF	-2200±500ppm/°C	100
CLB3G	82pF to 110pF	-2200±500ppm/°C	100

Capacitance value steps are in accordance with EIA E24 steps. However, capacitance values below 1pF are treated as belonging to 0.1pF step. Please refer to LxW size in Global Part Numbering guidance page.

Microwave Components

● High Dielectric Constant Type



Part Number	Capacitance at 25C° (pF)	Temperature Coefficient	Rated Voltage (Vdc)
CLB0A	2.0 to 12	±10%	100
CLB0B	3.3 to 15	±10%	100
CLB0C	3.9 to 18	±10%	100
CLB0D	5.1 to 30	±10%	100
CLB0E	8.2 to 43	±10%	100
CLB0H	47 to 56	±10%	100
CLB05	5.6 to 43	±10%	100
CLB0G	47 to 68	±10%	100
CLB0F	10 to 75	±10%	100
CLB1A	82 to 120	±10%	100
CLB0J	15 to 110	±10%	100
CLB1B	120 to 130	±10%	100
CLB09	16 to 130	±10%	100
CLB1E	150 to 180	±10%	100
CLB1C	33 to 270	±10%	100
CLB1G	68 to 360	±10%	100
CLB2C	390	±10%	100
CLB1H	62 to 470	±10%	100
CLB2L	510 to 750	±10%	100
CLB2E	91 to 750	±10%	100
CLB3G	820 to 1200	±10%	100
CLB0A	27 to 33	+30,-80%	100
CLB0B	36 to 39	+30,-80%	100
CLB0C	43 to 51	+30,-80%	100
CLB0D	62 to 82	+30,-80%	100
CLB0E	91 to 120	+30,-80%	100
CLB0H	130 to 150	+30,-80%	100
CLB05	75 to 130	+30,-80%	100
CLB0G	150 to 200	+30,-80%	100
CLB0F	130 to 220	+30,-80%	100
CLB1A	240 to 360	+30,-80%	100
CLB0J	200 to 300	+30,-80%	100
CLB1B	330 to 390	+30,-80%	100
CLB09	200 to 390	+30,-80%	100
CLB1E	430 to 560	+30,-80%	100
CLB1C	430 to 750	+30,-80%	100
CLB1G	820 to 1000	+30,-80%	100
CLB2C	1100 to 1300	+30,-80%	100
CLB1H	750 to 1300	+30,-80%	100
CLB2L	1500 to 1800	+30,-80%	100
CLB2E	1200 to 2200	+30,-80%	100
CLB3G	2400 to 3000	+30,-80%	100
CLB0A	36 to 56	+30,-90%	100

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Microwave Components

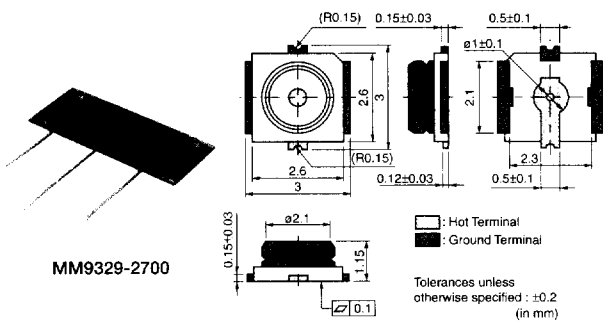
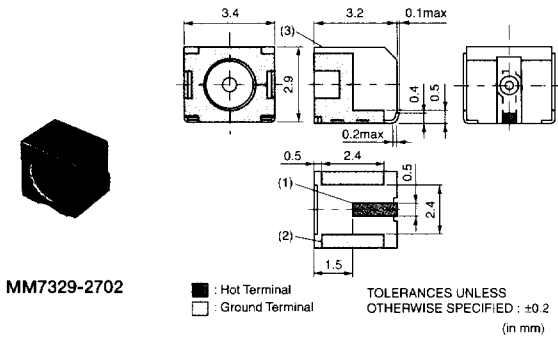
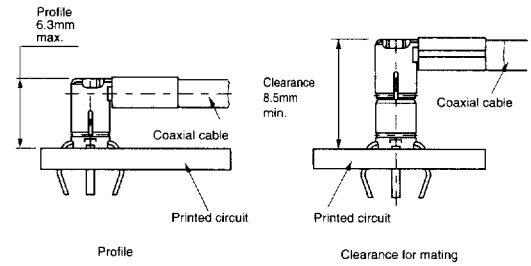
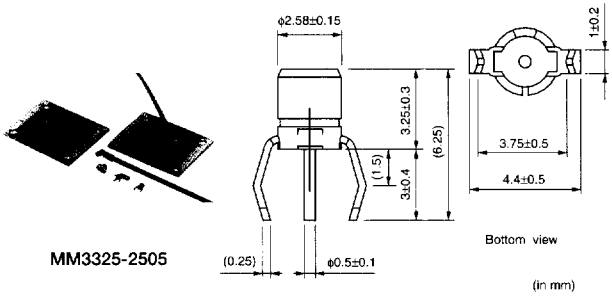
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Part Number	Capacitance at 25C° (pF)	Temperature Coefficient	Rated Voltage (Vdc)
CLB0D	91 to 150	+30,-90%	100
CLB05	130 to 220	+30,-90%	100
CLB0F	220 to 390	+30,-90%	100
CLB0J	330 to 560	+30,-90%	100
CLB09	390 to 680	+30,-90%	100
CLB1C	820 to 1300	+30,-90%	100
CLB1H	1500 to 2700	+30,-90%	100
CLB2E	2400 to 4300	+30,-90%	100

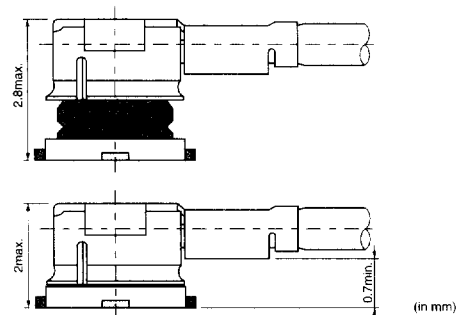
Capacitance value steps are in accordance with EIA E24 steps.
Please refer to LxW size in Global Part Numbering guidance page.

Coaxial Connectors

Dimensions



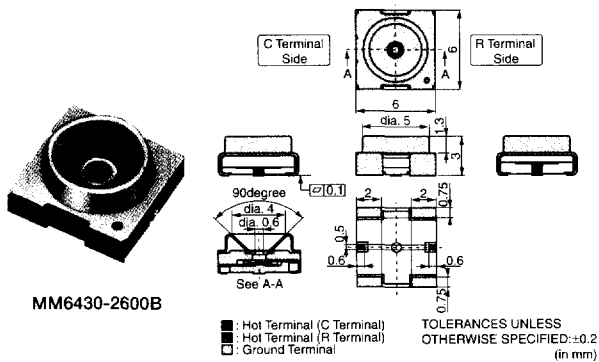
Dimension



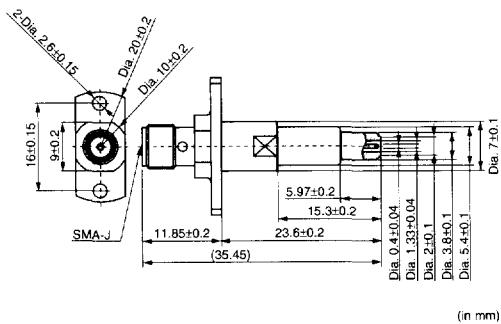
Part Number	Rated Voltage (V)	Frequency Rating (GHz)	Temperature Range	VSWR
MM3325-2505B	250	DC - 4.0	-40~+90°C	1.2 max.
MM3325-2507B	250	DC - 4.0	-40~+90°C	1.2 max.
MM3326-2506B	250	DC - 2.0	-40~+90°C	1.2 max.
MM7329-2700B	250	DC - 3.0	-40~+90°C	1.2 max.(DC~2GHz)
MM7329-2702B	250	DC - 3.0	-40~+90°C	1.3 max.
MM9329-2700B	250	DC - 6.0	-40~+90°C	1.2 max.(DC~3GHz)
MXFG76 TYPE	250	DC - 3.0	-40 to +90 degree C	1.3 max.
MXFK81 TYPE	250	DC - 3.0	-40 to +90 degree C	1.3 max.
MXTK88 TYPE	250	DC - 6.0	-40 to +90 degree C	1.2 max. (DC to 3GHz)
MXTK92 TYPE	250	DC - 6.0	-40 to +90 degree C	1.2 max. (DC to 3GHz)
MXZH62 TYPE	250	DC - 4.0	-40 to +90 degree C	1.2 max.
MXZH63 TYPE	250	DC - 4.0	-40 to +90 degree C	1.2 max.
MXZH75 TYPE	250	DC - 4.0	-40 to +90 degree C	1.2 max.

Impedance : 50 ohm

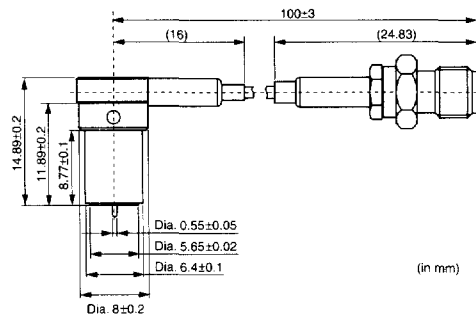
Coaxial Connectors with Switches



Measurement (1)



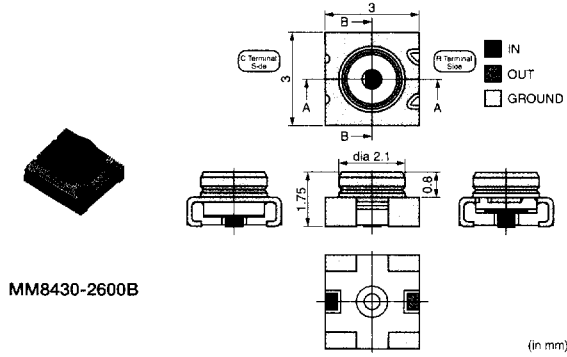
Measurement (2)



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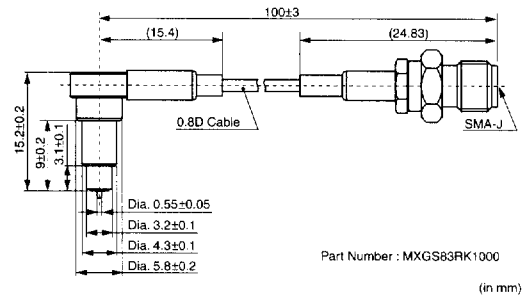
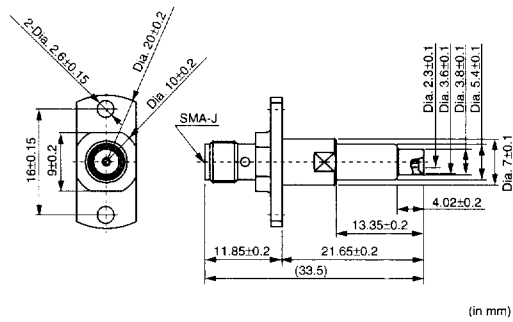
Microwave Components

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Measurement (1)

Measurement (2)



Part Number	Rated Voltage (Vrms)	Frequency Rating (GHz)	Temperature Range	VSWR
MM6430-2600B	250 max.	DC to 3	-40 to +90 degree C	1.2 max.
MM8430-2600B	250 max.	DC to 6	-40 to +90 degree C	1.2 max.

Impedance : 50 ohm