

TS18E



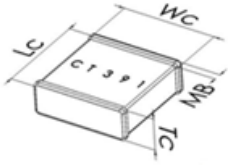
CHARACTERISTICS

- Size specifications are standardized and suitable for surface mount components in hybrid integrated circuits or printed circuits;
- High Q value, low ESR, high reliability;
- Low loss, high capacitance stability, high operating frequency;
- Suitable for high-frequency circuits, VHF-microwave bands, RF and amplification circuits in various equipment.

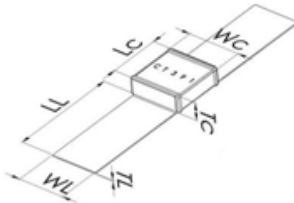
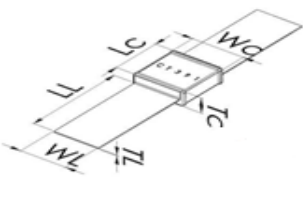
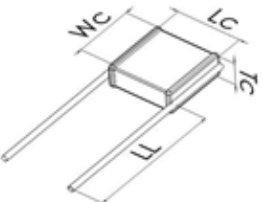
MAIN PERFORMANCE INDICATORS

Temperature Coefficient	COG: 0±30ppm/°C
Capacitance Drift	no more than±0.2% or ±0.05pF, whichever is larger.
Quality Factor (Q Value)	greater than 2,000 at a frequency of 1MHz/1KHz
Insulation Resistance	≥100000MΩ at 20°C
Operating Temperature	-55~125°C

Product Dimension

Product type	Size specifications (imperial)	Capacitor size(mm)			Terminal size(mm)			
		Lc	Wc	Tc max	MB	L _L min	W _L	T _L
Terminal code: N \ Z \ E 	0402	1.00±0.20	0.50±0.20	0.55	0.25±0.10			
	0603	1.52±0.25	0.76±0.25	1.01	0.30±0.15			
	0805	2.00±0.25	1.25±0.25	1.45	0.50±0.20			
	0505	1.40 -0.25~+0.38	1.40±0.38	1.45	0.40±0.15			
	1111	2.79 -0.25~+0.51	2.79±0.38	2.59	0.60±0.20			
	2525	5.84 -0.25~+0.51	6.35±0.38	3.68	0.80±0.30			
	3838(L)	9.90 -0.25~+0.38	8.89±0.25	4.0	1.00±0.50			
	3838(M)	9.65 -0.25~+0.38	9.65±0.25	4.5	1.00±0.50			
	6243	15.60 -0.25~+0.51	10.92±0.38	5.0	1.20±0.50			
	7676	19.30 -0.25~+0.51	19.30±0.38	5.0	1.50±0.50			

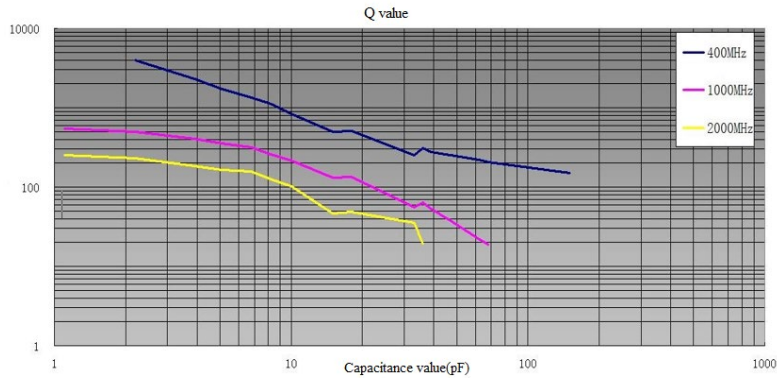
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Terminal code: M 	1111	3.50±0.38	2.79±0.25	2.54	--	6.35	2.36±0.13	0.20±0.05
	2525	6.35±0.38	6.35±0.38	3.68		12.70	6.10±0.13	0.20±0.05
	3838(M)	9.65 -0.25~+0.89	9.65±0.25	4.50		19.05	8.64±0.25	0.25±0.10
	6243	15.60 -0.25~+0.89	10.92±0.38	5.0		19.05	8.64±0.25	0.25±0.10
	7676	19.30 -0.25~+0.89	19.30±0.38	5.0		19.05	15.00±0.25	0.25±0.10
Terminal code: A 	2525	6.35±0.38	6.35±0.38	3.68		12.70	6.10±0.13	0.20±0.05
	3838(M)	9.65 -0.25~+0.89	9.65±0.25	4.50		19.05	8.64±0.25	0.25±0.10
	6243	15.60 -0.25~+0.89	10.92±0.38	5.0		19.05	8.64±0.25	0.25±0.10
	7676	19.30 -0.25~+0.89	19.30±0.38	5.0		19.05	15.00±0.25	0.25±0.10
Terminal code: RW \ RN 	1111	3.90±0.51	2.79±0.38	2.59		12.70	Lead diameter 0.40±0.05	
	2525	5.84 -0.25~+1.91	6.35±0.38	3.68	25.40	Lead diameter 0.80±0.05		
	3838(L)	9.90 -0.25~+2.16	8.89±0.25	4.0				
	3838(M)	9.65 -0.25~+2.16	9.65±0.25	4.50				

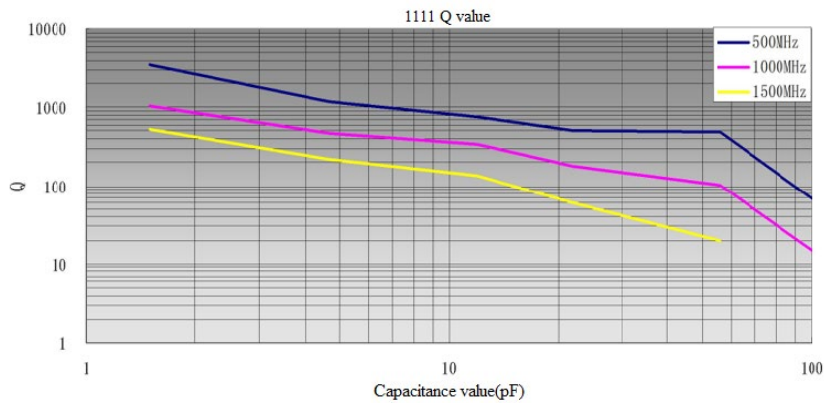
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Characteristic Curve

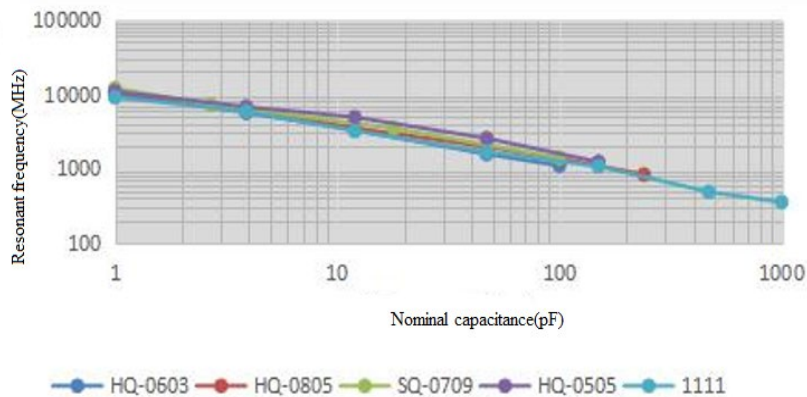
0505 Q value to Capacitance value



1111 Q value to Capacitance value



0603\0805\0709\0505\1111 Resonant frequency to nominal capacitance



Note: The above chart is obtained by testing with Agilent 4287A and N5222A, for reference only, and cannot represent factory inspection.

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Capacity Range

0402 specification capacitance table

Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)
0R1	0.1	A B C	250	2R1	2.1	B C D	250	130	13	F G J	200
0R2	0.2			2R2	2.2			150	15		
0R3	0.3			2R4	2.4			160	16		
0R4	0.4			2R7	2.7			180	18		
0R5	0.5	3R0		3	200			20			
0R6	0.6	3R3		3.3	220			22			
0R7	0.7	3R6		3.6	240			24			
0R8	0.8	3R9		3.9	270			27			
0R9	0.9	4R3		4.3	300			30			
1R0	1	4R7		4.7	330			33			
1R1	1.1	5R1		5.1	360		36				
1R2	1.2	5R6		5.6	390		39				
1R3	1.3	6R2		6.2	430		43				
1R4	1.4	6R8		6.8	470		47				
1R5	1.5	7R5		7.5							
1R6	1.6	8R2		8.2							
1R7	1.7	9R1		9.1							
1R8	1.8	100		10							
1R9	1.9	110		11							
2R0	2	120		12							

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0603 specification capacitance table

Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)
0R1	0.1	A B C	250	3R3	3.3	B C D	250	360	36	F G J K M	150
0R2	0.2			3R6	3.6			390	39		
0R3	0.3			3R9	3.9			430	43		
0R4	0.4			4R3	4.3			470	47		
0R5	0.5	4R7		4.7	510			51			
0R6	0.6	5R1		5.1	560			56			
0R7	0.7	5R6		5.6	620			62			
0R8	0.8	6R2		6.2	680			68			
0R9	0.9	6R8		6.8	750			75			
1R0	1	A B C D		7R5	7.5	820		82			
1R1	1.1			8R2	8.2	910		91			
1R2	1.2			9R1	9.1	101		100			
1R3	1.3			100	10						
1R4	1.4			110	11						
1R5	1.5			120	12						
1R6	1.6			130	13						
1R7	1.7			150	15						
1R8	1.8			160	16						
1R9	1.9			180	18						
2R0	2			F G J K M	200	20					
2R1	2.1				220	22					
2R2	2.2				240	24					
2R4	2.4				270	27					
2R7	2.7				300	30					
3R0	3	330			33						

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0505 specification capacitance table

Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	
0R2	0.2	B C	250	3R6	3.6	B C D	250	390	39	F G J K M	250	
0R3	0.3			3R9	3.9			430	43			
0R4	0.4			4R3	4.3			470	47			
0R5	0.5	B C D		4R7	4.7			510	51			
0R6	0.6			5R1	5.1			560	56			
0R7	0.7			5R6	5.6			620	62			
0R8	0.8			6R2	6.2			680	68			
0R9	0.9			6R8	6.8			750	75			
1R0	1			7R5	7.5			820	82			
1R1	1.1			8R2	8.2			910	91			
1R2	1.2			9R1	9.1			101	100			
1R3	1.3			B C D	100			10	111			110
1R4	1.4				110			11	121			120
1R5	1.5				120			12	131			130
1R6	1.6				130			13	151			150
1R7	1.7				150			15	161			160
1R8	1.8				160			16	181			180
1R9	1.9				180			18	201			200
2R0	2				200			20	221			220
2R1	2.1	220			22							
2R2	2.2	240			24							
2R4	2.4	270		27								
2R7	2.7	300		30								
3R0	3	330		33								
3R3	3.3	360		36								

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0805 specification capacitance table

Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)
0R2	0.2	B C	250	3R6	3.6	B C D	250	390	39	F G J K	250
0R3	0.3			3R9	3.9			430	43		
0R4	0.4			4R3	4.3			470	47		
0R5	0.5	4R7		4.7	510			51			
0R6	0.6	5R1		5.1	560			56			
0R7	0.7	5R6		5.6	620			62			
0R8	0.8	6R2		6.2	680			68			
0R9	0.9	6R8		6.8	750			75			
1R0	1	7R5		7.5	820			82			
1R1	1.1	8R2		8.2	910	91					
1R2	1.2	9R1		9.1	101	100					
1R3	1.3	100		10	111	110					
1R4	1.4	110		11	121	120					
1R5	1.5	120		12	131	130					
1R6	1.6	130		13	151	150					
1R7	1.7	150	15	161	160						
1R8	1.8	160	16	181	180						
1R9	1.9	180	18	201	200						
2R0	2	200	20	221	220						
2R1	2.1	220	22	241	240						
2R2	2.2	240	24								
2R4	2.4	270	27								
2R7	2.7	300	30								
3R0	3	330	33								
3R3	3.3	360	36								

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1111 specification capacitance table

Capacitance code	Capacitance (pf)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pf)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pf)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pf)	Accuracy	Max DC working voltage (V)	
0R1	0.1	A B C	1500	3R3	3.3		1500	360	36		1000	391	390		500	
0R2	0.2			3R6	3.6			390	39			431	430			
0R3	0.3			3R9	3.9			430	43			471	470			
0R4	0.4			4R3	4.3			470	47			511	510			
0R5	0.5	A B C D		4R7	4.7	A		510	51	561		560	F G J K	250	621	620
0R6	0.6			5R1	5.1	B		560	56	681		680				
0R7	0.7			5R6	5.6	C		620	62	751		750				
0R8	0.8			6R2	6.2	D		680	68	821		820				
0R9	0.9			6R8	6.8			750	75	911		910				
1R0	1			7R5	7.5			820	82	102		1000				
1R1	1.1			8R2	8.2			910	91							
1R2	1.2			9R1	9.1			101	100							
1R3	1.3			A B C D	100	10		F G J K	600	111		110				
1R4	1.4				110	11				121		120				
1R5	1.5				120	12				131		130				
1R6	1.6				130	13				151		150				
1R7	1.7	150	15		161	160										
1R8	1.8	160	16		181	180										
1R9	1.9	180	18		201	200										
2R0	2	200	20		221	220										
2R1	2.1	220	22		241	240										
2R2	2.2	240	24		271	270										
2R4	2.4	270	27	301	300											
2R7	2.7	300	30	1000	331	330	500									
3R0	3	330	33		361	360										

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2525 specification capacitance table

Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)										
1R0	1.0	B C	3600	7R5	7.5	B	3600	820	82	F G J K M	3600	911	910	F G J K M	1000										
1R1	1.1			8R2	8.2	C		910	91			102	1000												
1R2	1.2			9R1	9.1	D		101	100			112	1100												
1R3	1.3	B C D		100	10	F G J K M		3600	111			110	2500		2700	122	1200	F G J K M	500						
1R4	1.4			110	11				121			120				152	1500								
1R5	1.5			120	12				131			130				182	1800								
1R6	1.6			130	13				151			150				202	2000		250						
1R7	1.7			150	15				161			160				222	2200								
1R8	1.8			160	16				181			180				272	2700								
1R9	1.9			180	18				201			200													
2R0	2.0			200	20				221			220							2000	1500					
2R1	2.1			220	22				241			240													
2R2	2.2			240	24				271			270													
2R4	2.4			B C D	270				27			F G J K M				3600	301		300	2500	2700	331	330	F G J K M	500
2R7	2.7				300				30								361		360			1500			
3R0	3	330	33		391	390																			
3R3	3.3	360	36		431	430	1000																		
3R6	3.6	390	39		471	470																			
3R9	3.9	430	43		511	510																			
4R3	4.3	470	47		561	560	1000																		
4R7	4.7	510	51		621	620																			
5R1	5.1	560	56		681	680																			
5R6	5.6	620	62		751	750	1000																		
6R2	6.2	680	68		821	820																			
6R8	6.8	750	75																						

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3838 specification capacitance table

Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)
1R0	1.0	B C	7200	7R5	7.5	B	7200	820	82	F G J K M	7200	911	910	F G J K M	1500
1R1	1.1			8R2	8.2	C		910	91			102	1000		
1R2	1.2			9R1	9.1	D		101	100			112	1100		
1R3	1.3	B C D	7200	100	10	F G J K M	7200	111	110	F G J K M	5000	122	1200	F G J K M	1000
1R4	1.4			110	11			121	120			152	1500		
1R5	1.5			120	12			131	130			182	1800		
1R6	1.6			130	13			151	150			202	2000		
1R7	1.7			150	15			161	160			222	2200		
1R8	1.8			160	16			181	180			242	2400		
1R9	1.9			180	18			201	200			272	2700		
2R0	2.0			200	20			221	220			302	3000		
2R1	2.1			220	22			241	240			332	3300		
2R2	2.2	240	24	271	270	362	3600								
2R4	2.4	270	27	301	300	392	3900								
2R7	2.7	300	30	331	330	432	4300								
3R0	3	330	33	361	360	472	4700								
3R3	3.3	360	36	391	390	512	5100								
3R6	3.6	390	39	431	430	562	5600								
3R9	3.9	430	43	471	470	622	6200								
4R3	4.3	470	47	511	510	682	6800								
4R7	4.7	510	51	561	560										
5R1	5.1	560	56	621	620										
5R6	5.6	620	62	681	680										
6R2	6.2	680	68	751	750										
6R8	6.8	750	75	821	820										
											1500				

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6243 specification capacitance table

Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)
1R0	1.0	B C	10000	7R5	7.5	B	10000	820	82	F G J K M	10000	911	910	F G J K M	3000
1R1	1.1			8R2	8.2	C		910	91			102	1000		
1R2	1.2			9R1	9.1	D		101	100			122	1200		
1R3	1.3	B C D	10000	100	10	F G J K M	10000	111	110	F G J K M	7200	152	1500	F G J K M	2500
1R4	1.4			110	11			121	120			182	1800		2000
1R5	1.5			120	12			131	130			202	2000		1500
1R6	1.6			130	13			151	150			222	2200		1000
1R7	1.7			150	15			161	160			242	2400		
1R8	1.8			160	16			181	180			272	2700		
1R9	1.9			180	18			201	200			302	3000		500
2R0	2.0			200	20			221	220			332	3300		
2R1	2.1			220	22			241	240			392	3900		
2R2	2.2	240	24	271	270	472	4700	3600							
2R4	2.4	270	27	301	300	3600	3600		3600						
2R7	2.7	300	30	331	330										
3R0	3	330	33	361	360										
3R3	3.3	360	36	391	390										
3R6	3.6	390	39	431	430										
3R9	3.9	430	43	471	470										
4R3	4.3	470	47	511	510										
4R7	4.7	510	51	561	560										
5R1	5.1	560	56	621	620										
5R6	5.6	620	62	681	680										
6R2	6.2	680	68	751	750										
6R8	6.8	750	75	821	820										

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7676 specification capacitance table

Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)	Capacitance code	Capacitance (pF)	Accuracy	Max DC working voltage (V)
1R0	1.0		10000	7R5	7.5	B	10000	820	82		10000	911	910		3600
1R1	1.1	B		8R2	8.2	C		910	91			102	1000		
1R2	1.2	C		9R1	9.1	D		101	100			122	1200		
1R3	1.3			100	10			111	110			152	1500		
1R4	1.4			110	11			121	120			182	1800		
1R5	1.5			120	12			131	130			202	2000	F	
1R6	1.6			130	13			151	150	8000		222	2200	G	3000
1R7	1.7			150	15			161	160			272	2700	J	
1R8	1.8			160	16			181	180			332	3300	K	
1R9	1.9		180	18		201	200		392	3900	M	2000			
2R0	2.0		200	20		221	220	F	472	4700					
2R1	2.1		220	22		241	240	G	562	5600		1000			
2R2	2.2		240	24	F	271	270	J	682	6800					
2R4	2.4	B	270	27	G	301	300	K	752	7500					
2R7	2.7	C	300	30	J	331	330	M	822	8200					
3R0	3	D	330	33	K	361	360								
3R3	3.3		360	36	M.	391	390								
3R6	3.6		390	39		431	430		3600						
3R9	3.9		430	43		471	470								
4R3	4.3		470	47		511	510								
4R7	4.7		510	51		561	560								
5R1	5.1		560	56		621	620								
5R6	5.6		620	62		681	680								
6R2	6.2		680	68		751	750								
6R8	6.8		750	75		821	820								

Please contact us for special item or size not listed

Note: Specifications are subject to change without notice. For more detail and update, please visit our website.