

HH series High Q & Low ESR capacitor series

◆ Features

- » High Q and Low ESR performance at high frequency
- » Quality improvement of telephone calls for low power loss and better performance

◆ Applications

- » Mobile telecommunication: Mobile phone, WLAN,
- » RF module: Power amplifier, VCO
- » Tuners

◆ Part Number

HH	0402	N	100	J	101
Series	Size	Dielectric	Capacitance	Tolerance	Rated voltage
Inch:	N: NPO (COG)	Two significant digits followed by no. of zeros and P is in place of decimal point	B=±0.1pF C=±0.25pF D=±0.5pF	Two significant digits followed no. of zeros and V is in place of decimal point	160 = 16 VDC 250 = 25 VDC 500 = 50 VDC 201 = 200 VDC 251 = 250 VDC 501 = 500 VDC 631 = 630 VDC
0402					
0603					
0805		Eg.: 0P47 = 0.47pF 0P5 = 0.5pF 1P0 = 1.0pF 100 = 10x10 ⁰ = 10pF		F=±1% G=±2% J=±5%	

◆ General Electrical Data

Dielectric	NPO
Size	0402, 0603, 0805
Capacitance*	0402: 0.5pF to 470pF 0603: 0.5pF to 3300pF 0805: 0.5pF to 390pF
Capacitance tolerance	Cap≤5pF: B (±0.1pF), C (±0.25pF) 5pF<Cap<10pF: C (±0.25pF), D (±0.5pF) Cap≥10pF: F (±1%), G (±2%), J(±5%)
Rated voltage (WVDC)	16V, 25V, 50V, 100V, 250V, 500V, 630V
Q*	Cap<30pF: Q≥400+20C Cap≥30pF, Q≥1000
Insulation resistance at U _R	≥10GΩ or R x C≥100Ω·F whichever is smaller.
Operating temperature	-55 to +125°C
Capacitance change	±30ppm
Termination	Ni/Sn (lead-free termination)

* Measured at the conditions of 25°C ambient temperature and 30~70% related humidity.
Apply 1.0±0.2Vrms, 1.0kHz±10%

** Measured at 500VDC for 60sec, for U_R>500VDC.

◆ **Capacitance Range**

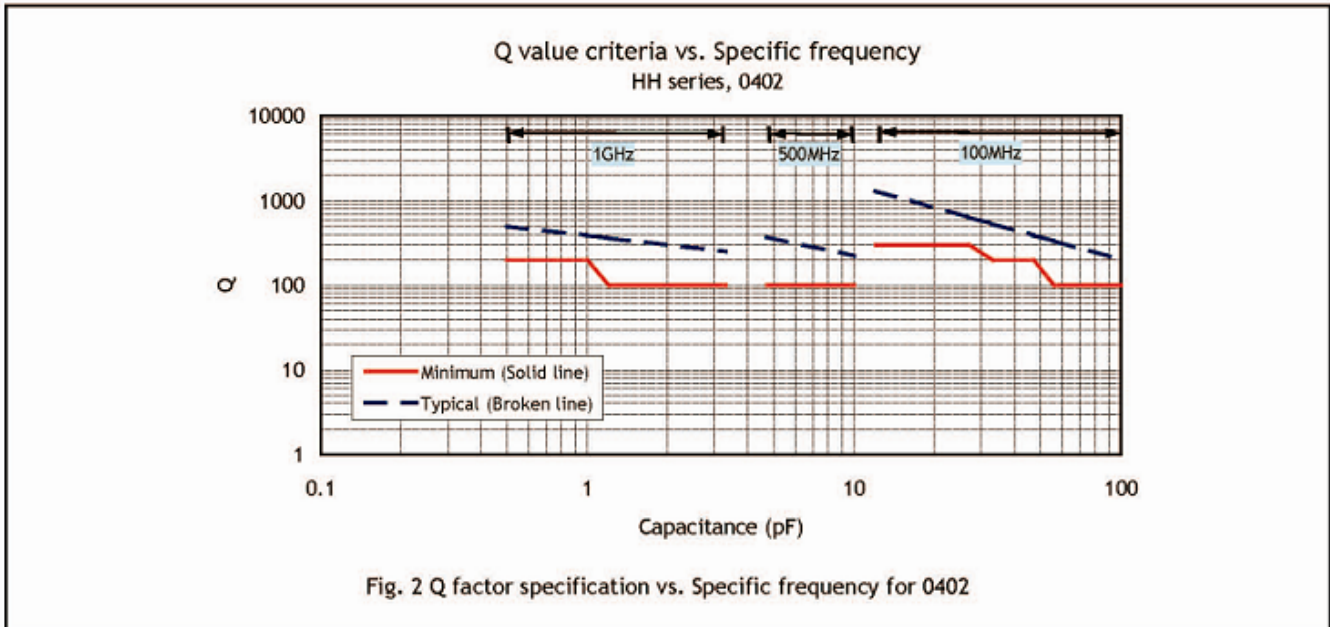
Dielectric		NPO (COG)												
Size		0402			0603				0805					
Rated Voltage		16	25	50	16	25	50	100	50	100	200	250	500	630
Capacitance	0.5pF (0P5)													
	0.6pF (0P6)													
	0.7pF (0P7)													
	0.8pF (0P8)													
	0.9pF (0P9)													
	1.0pF (1P0)													
	1.2pF (1P2)													
	1.5pF (1P5)													
	1.8pF (1P8)													
	2.2pF (2P2)													
	2.3pF (2P3)													
	2.7pF (2P7)													
	3.3pF (3P3)													
	3.9pF (3P9)													
	4.7pF (4P7)													
	5.6pF (5P6)													
	6.8pF (6P8)													
	8.2pF (8P2)													
	10pF (100)													
	12pF (120)													
	15pF (150)													
	18pF (180)													
	22pF (220)													
	27pF (270)													
	33pF (330)													
	39pF (390)													
	47pF (470)													
	56pF (560)													
	68pF (680)													
	82pF (820)													
	100pF (101)													
	120pF (121)													
	150pF (151)													
180pF (181)														
220pF (221)														
270pF (271)														
330pF (331)														
390pF (391)														
470pF (471)														
560pF (561)														
680pF (681)														
820pF (821)														
1000pF (102)														
1200pF (122)														
1500pF (152)														
1800pF (182)														
2200pF (222)														
2700pF (272)														
3300pF (332)														

* 0402, capacitance < 0.5pF: on request

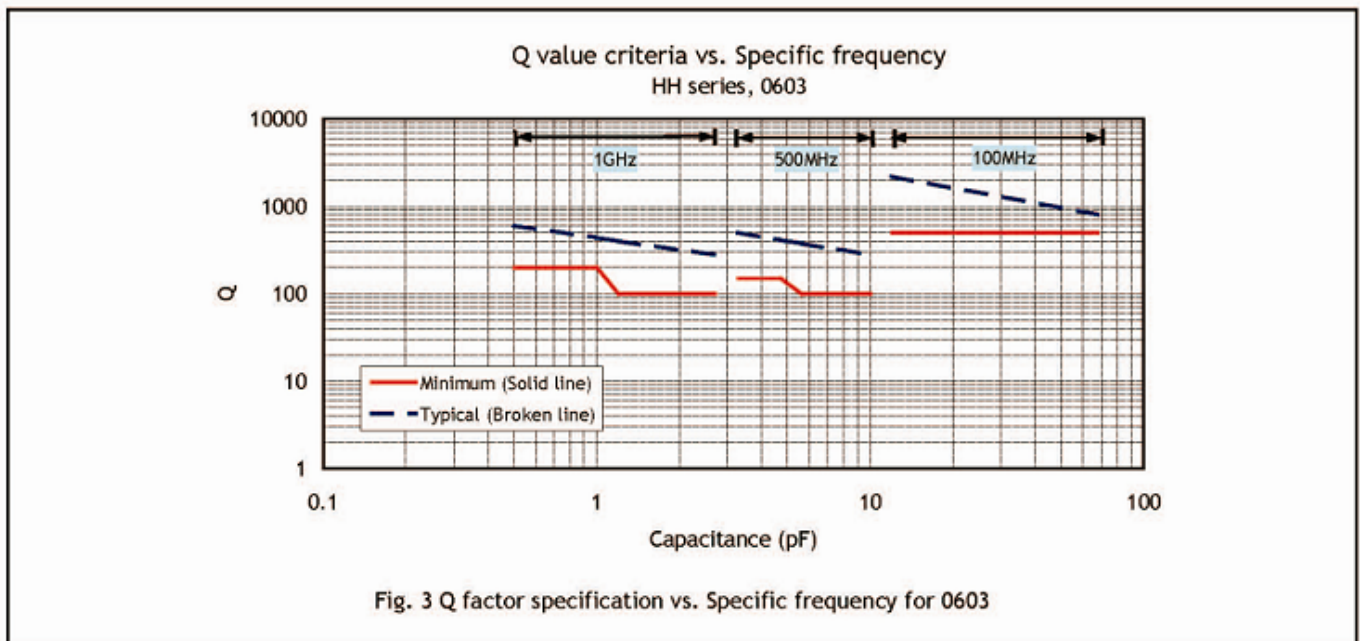
** For more information about product with special capacitance or other data, please contact Faithful Link.

◆ **Electrical Characteristics**

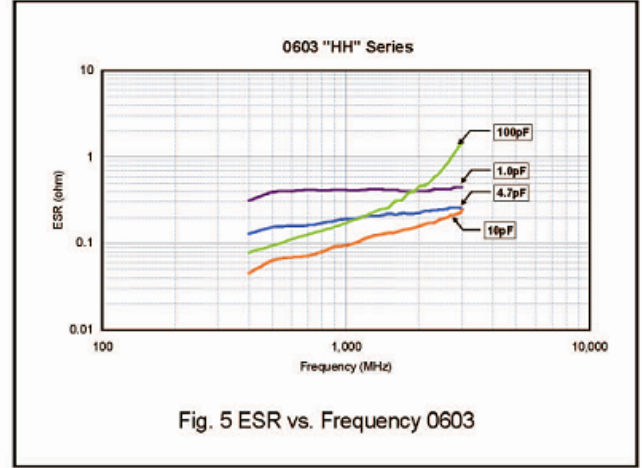
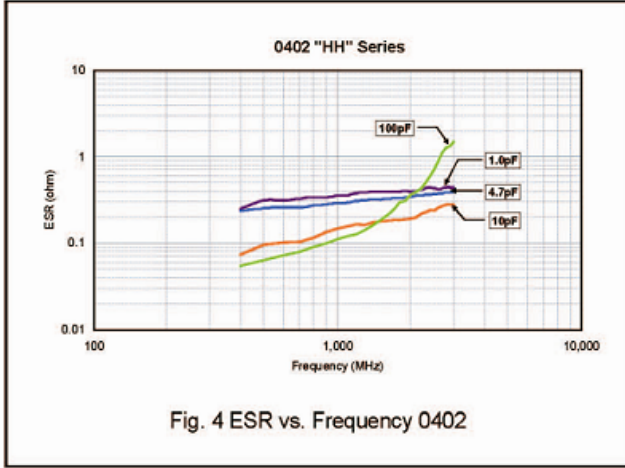
Q factor specification vs. Specific frequency



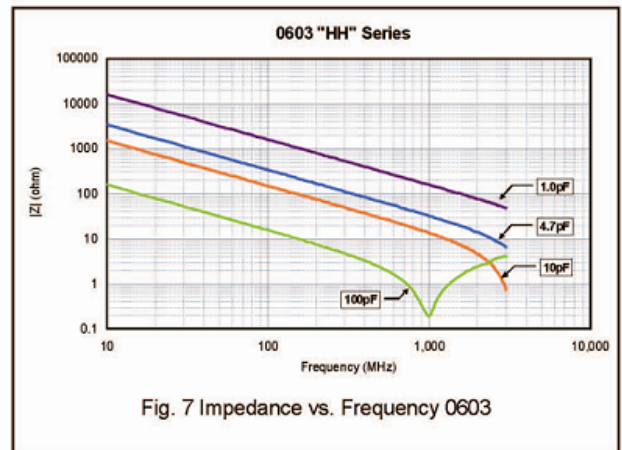
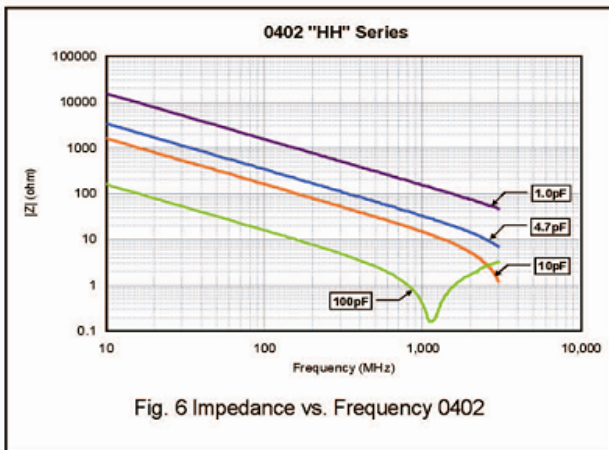
Typical ESR vs. Frequency



Typical ESR vs. Frequency



Typical Impedance vs. Frequency



Typical Impedance vs. Frequency

