

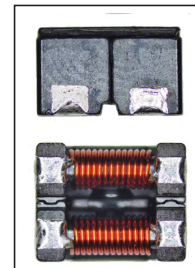
NCCP Series

Surface Mount Common Mode Chokes



FEATURES

- **HIGH RELIABILITY AEC-Q200 COMPLIANT**
- HIGH COMMON MODE IMPEDANCE AT HIGH FREQUENCY
- SUITABLE FOR HIGH SPEED DIGITAL EQUIPMENT (USB/IEEE)
- LOW PROFILE SURFACE MOUNT PACKAGE (5555 ~ 1513)
- SHIELDED PROVIDING EXCELLENT NOISE SUPPRESSION
- BOTH FLOW AND REFLOW SOLDERING APPLICABLE



CHARACTERISTICS

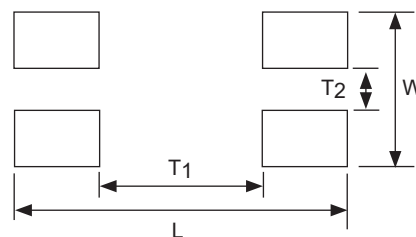
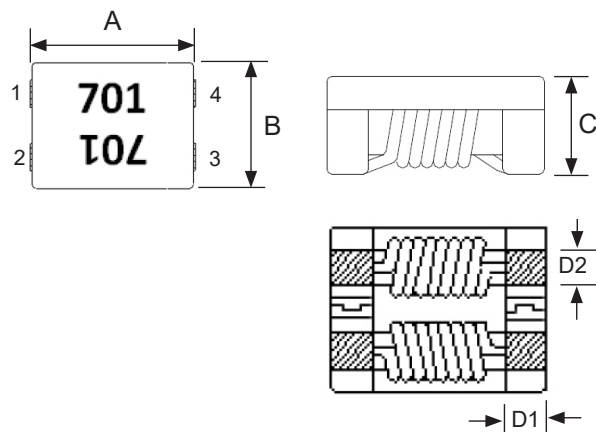
Case Size	5555	7060	9070	1211	1513
Impedance Range	140 ~ 1400 Ohms	70 ~ 1300 Ohms	500 ~ 2700 Ohms	500 ~ 1700 Ohms	100 ~ 700 Ohms
Available Tolerance	±25%				
Temperature Range	-40°C ~ +125°C				
Insulation Resistance	10MΩ after application 50V for 30 seconds				
Resistance to Solder Heat	260°C ±5°C for 10 seconds				
Temperature Cycling	±25% of initial value after 10 cycles (-40°C ± 2°C / +125°C ± 2°C)				

CASE DIMENSIONS (mm)

Type	A	B	C max.	D1±0.5	D2 ±0.5
NCCP5555	5.5±0.5	5.5±0.5	3.5	1.1	1.2
NCCP7060	7.0±0.5	6.0±0.5	3.8	1.7	1.5
NCCP9070	9.0±0.5	7.0±0.5	4.5	1.8	1.5
NCCP1211	12.0±0.5	11.0±0.5	6.0	2.6	2.7
NCCP1513	15.0±0.5	13.0±0.5	6.0	2.8	2.7

LAND PATTERN DIMENSIONS (mm)

Case Size	L	W	T1	T2
5555	5.9	4.3	3.3	1.9
7060	8.0	4.5	3.5	1.5
9070	11.0	5.0	6.0	2.0
1211	14.0	7.9	7.4	2.5
1513	17.0	9.2	10.4	3.8

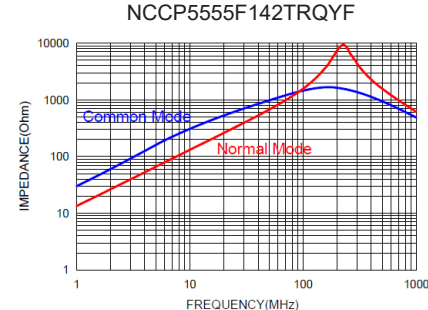
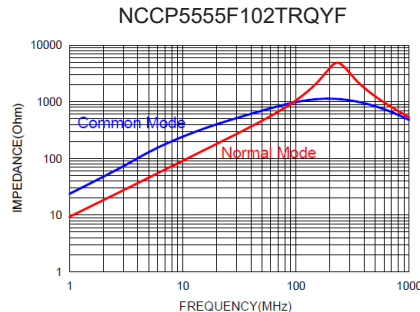
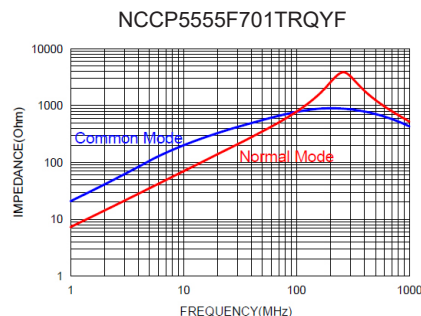
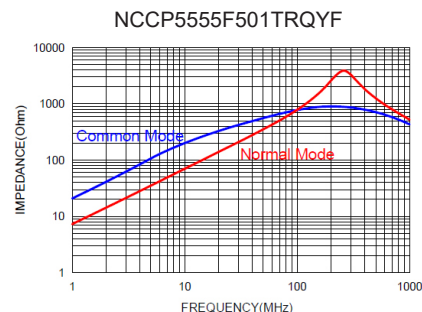
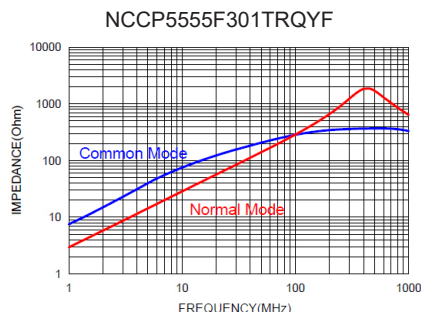
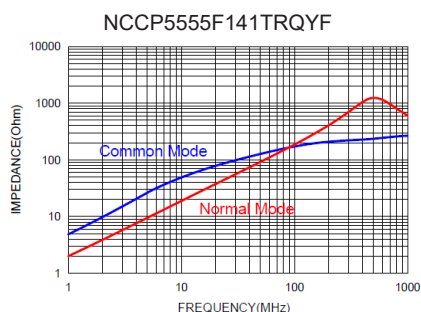


PART NUMBER SYSTEM

NCCP	7060	F	141	TR	QY	F
Series	Case Size	Material (Ferrite)	Impedance at 100Mhz 3 digit code; first two digits are significant third digit is no. of zeros	Packaging: TR = Tape and Reel	"QY" denotes AEC Q-200 Qualified suitable for Automotive Equipment*	RoHS Compliant

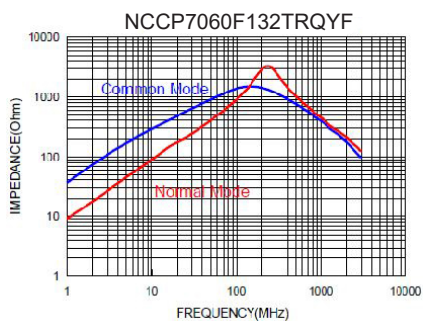
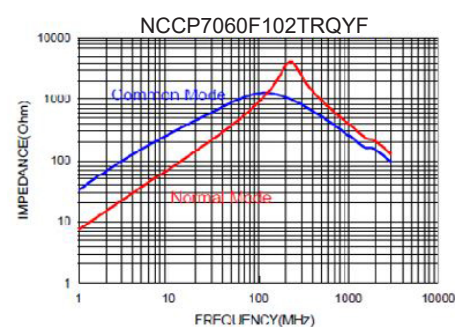
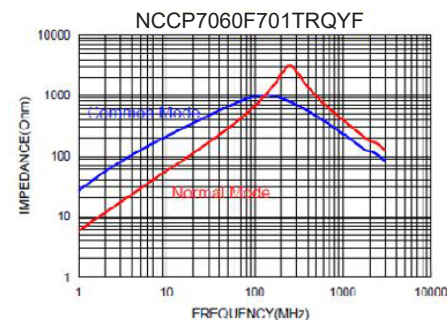
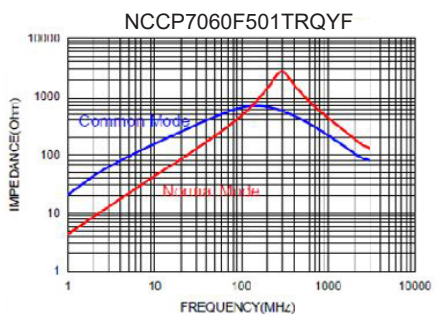
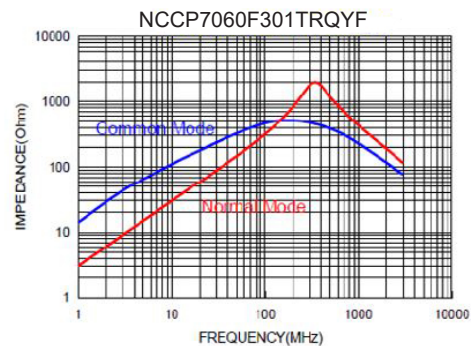
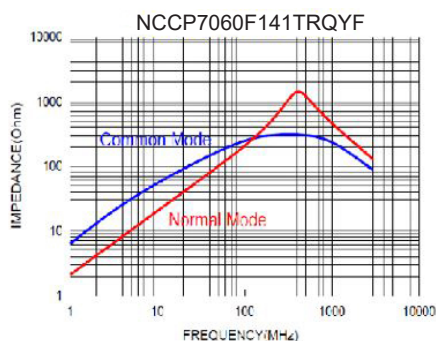
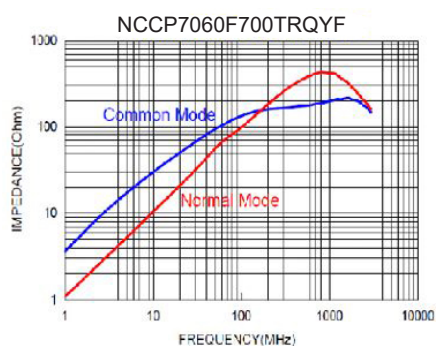
NCCP7060 SPECIFICATIONS

NIC Part Number	Impedance (Ω)		Test Frequency (MHz)	DC Resistance (Ω max.) per line	DC Current (mA max.)	Voltage Rating (Vdc)	Insulation Resistance (Ω)
	min.	typ.					
NCCP5555F141TRQYF	100	140	100	0.006	8,500	80	10Meg
NCCP5555F301TRQYF	150	300		0.0075	4,800		
NCCP5555F501TRQYF	300	500		0.0105	4,500		
NCCP5555F701TRQYF	500	700		0.013	3,800		
NCCP5555F102TRQYF	750	1000		0.020	3,000		
NCCP5555F142TRQYF	1000	1400		0.038	2,800		



NCCP7060 SPECIFICATIONS

NIC Part Number	Impedance (Ω)		Test Frequency (MHz)	DC Resistance (Ω max.) per line	DC Current (mA max.)	Voltage Rating (Vdc)	Insulation Resistance (Ω)
	min.	typ.					
NCCP7060F700TRQYF	40	70	100	0.005	15,000	80	10Meg
NCCP7060F141TRQYF	100	140		0.010	9,000		
NCCP7060F301TRQYF	225	300		0.010	5,000		
NCCP7060F501TRQYF	400	500		0.010	5,000		
NCCP7060F701TRQYF	500	700		0.015	4,000		
NCCP7060F102TRQYF	800	1020		0.017	3,000		
NCCP7060F132TRQYF	910	1300		0.020	3,000		



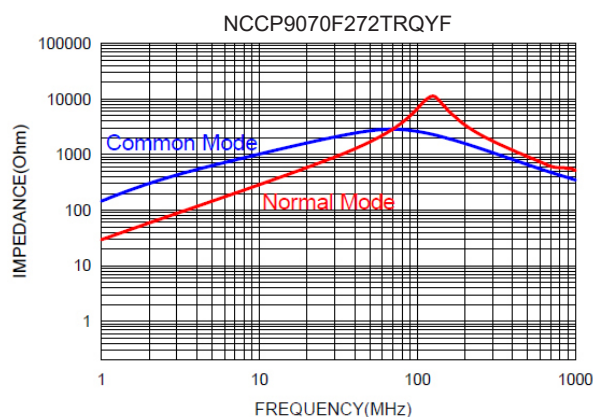
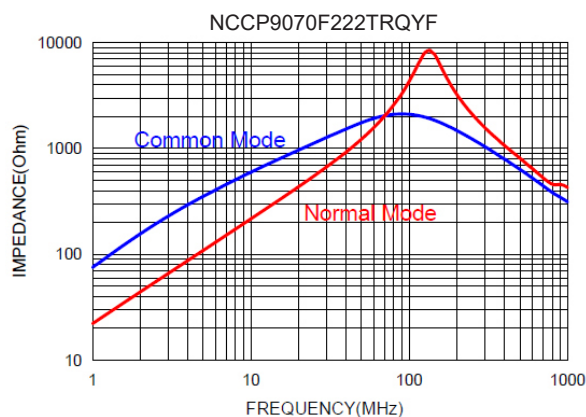
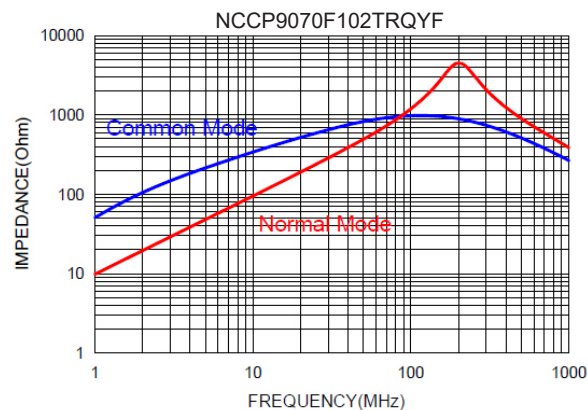
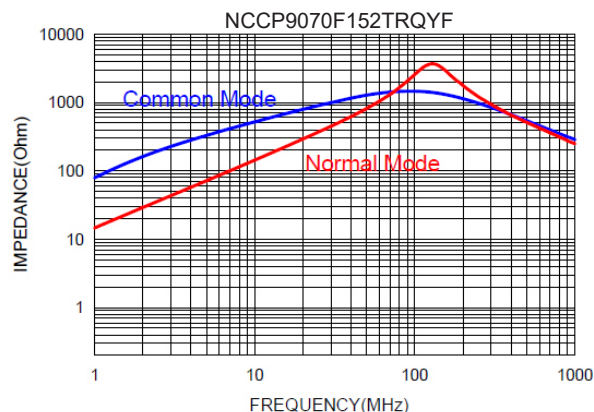
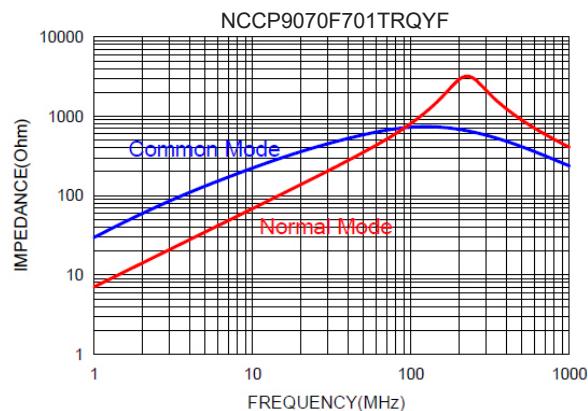
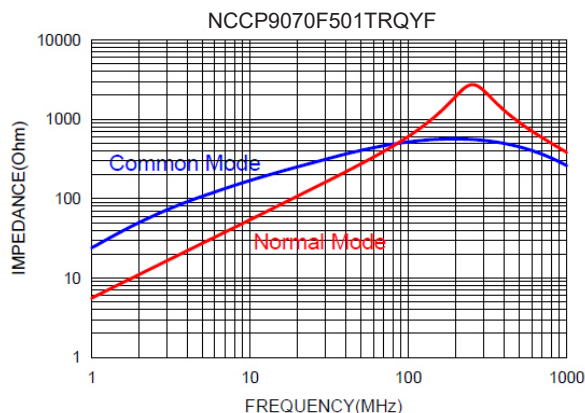
NCCP Series

Surface Mount Common Mode Chokes



NCCP9070 SPECIFICATIONS

NIC Part Number	Impedance(Ω)		Test Frequency (MHz)	DC Resistance (Ω max.) per line	DC Current (mA max.)	Voltage Rating (Vdc)	Insulation Resistance (Ω)
	min.	typ.					
NCCP9070F501TRQYF	300	500	100	0.006	8,000	80	10Meg
NCCP9070F701TRQYF	500	700	100	0.009	6,000		
NCCP9070F102TRQYF	750	1000	100	0.010	5,000		
NCCP9070F152TRQYF	1000	1500	100	0.015	4,500		
NCCP9070F222TRQYF	1700	2200	100	0.025	4,000		
NCCP9070F272TRQYF	2000	2700	100	0.032	3,500		



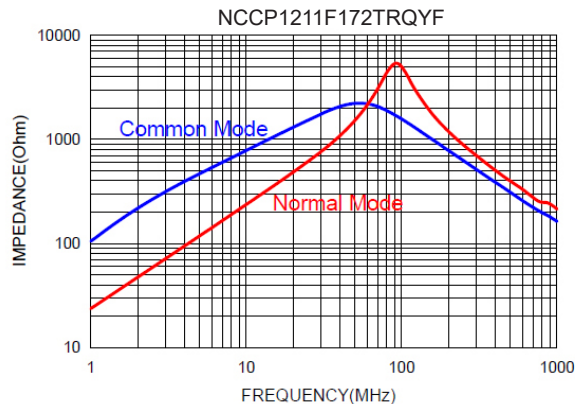
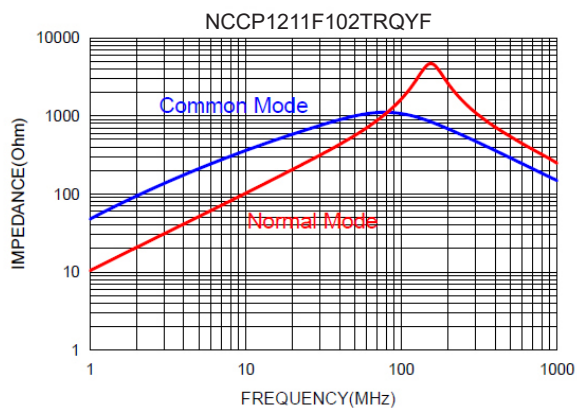
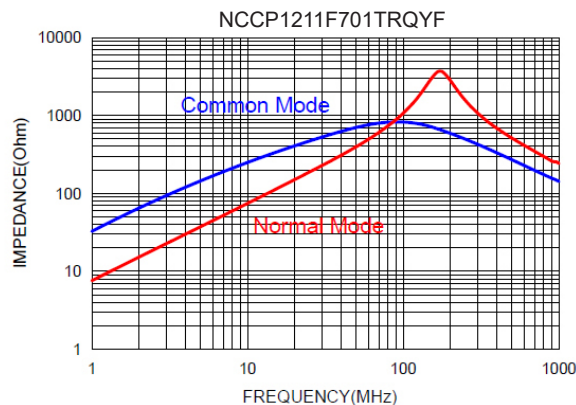
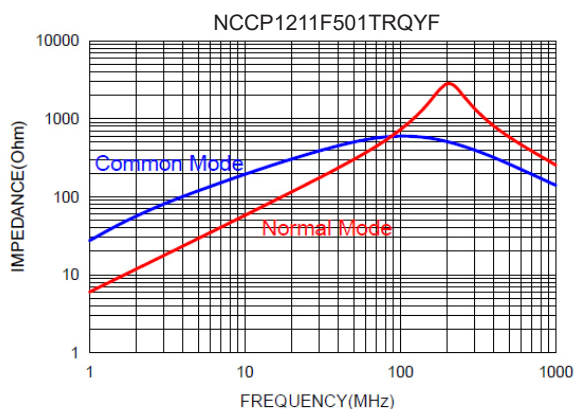
NCCP Series

Surface Mount Common Mode Chokes



NCCP1211 SPECIFICATIONS

NIC Part Number	Impedance (Ω)		Test Frequency (MHz)	DC Resistance (Ω max.) per line	DC Current (mA max.)	Voltage Rating (Vdc)	Insulation Resistance (Ω)
	min.	typ.					
NCCP1211F501TRQYF	300	500	100	0.004	11,000	80	10Meg
NCCP1211F701TRQYF	500	700	100	0.005	9,000		
NCCP1211F102TRQYF	750	1000	100	0.008	7,000		
NCCP1211F172TRQYF	1200	1700	100	0.012	5,500		



NCCP Series

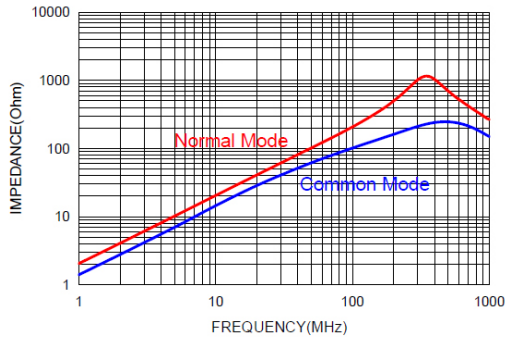
Surface Mount Common Mode Chokes



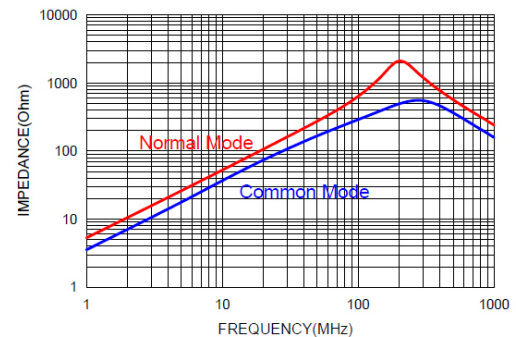
NCCP1513 SPECIFICATIONS

NIC Part Number	Impedance (Ω)		Test Frequency (MHz)	DC Resistance (Ω max.) per line	DC Current (mA max.)	Voltage Rating (Vdc)	Insulation Resistance (Ω)
	min.	typ.					
NCCP1513F101TRQYF	60	100	100	0.002	20,000	125	10Meg
NCCP1513F301TRQYF	200	300	100	0.0035	14,000		
NCCP1513F551TRQYF	450	550	100	0.004	10,000		
NCCP1513F701TRQYF	500	700	100	0.005	10,000		

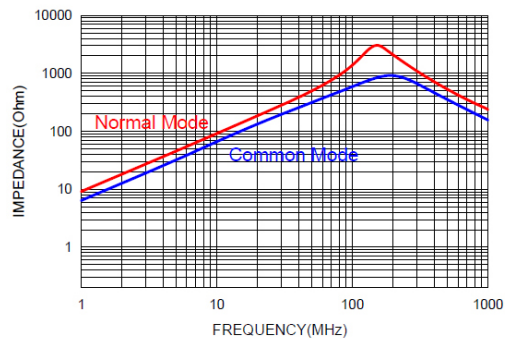
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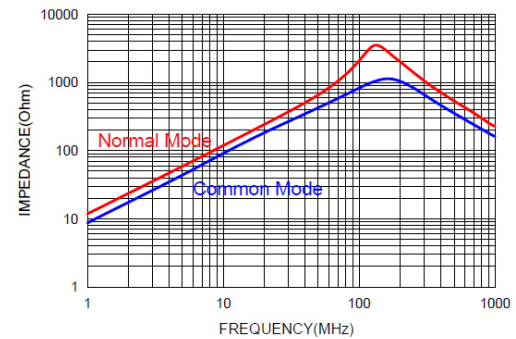
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NCCP1513F551TRQYF



NCCP1513F701TRQYF



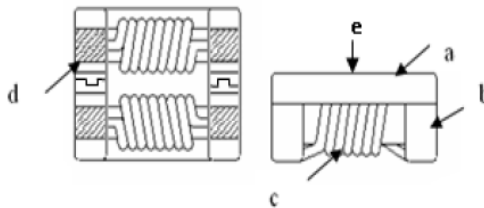
NCCP Series

Surface Mount Common Mode Chokes

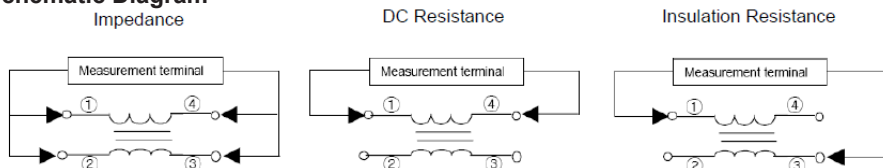


Construction

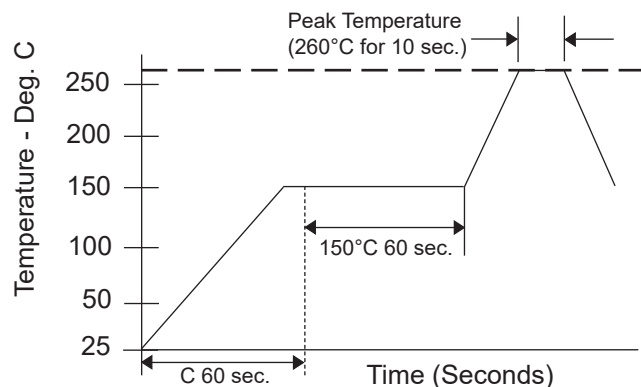
No.	Description	Specification
a.	Upper Plate	Ceramics Core (Black) (7060) Plastic (9070/1211)
b.	Core	Ferrite Core
c.	Wire	Enameled Copper
d.	Termination	Ag/Ni/Sn + Sn Solder
e.	Mark	Laser Marking



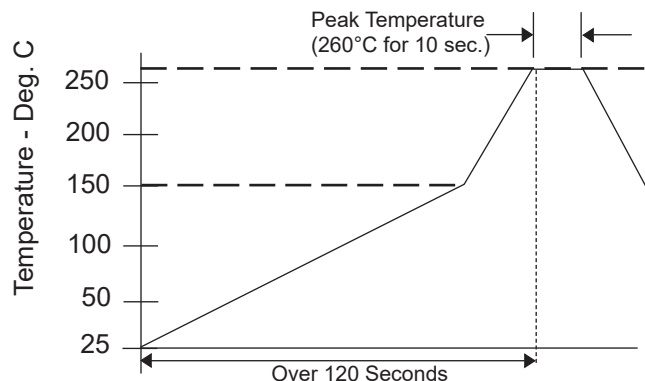
Schematic Diagram



RECOMMENDED REFLOW SOLDERING PROFILE

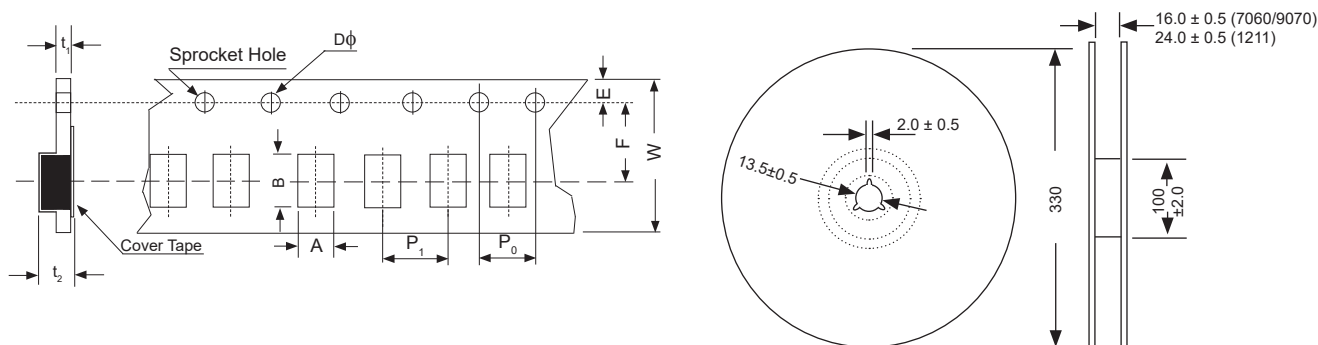


RECOMMENDED FLOW SOLDERING PROFILE



Tape Dimensions

Series	A ± 0.1	B ± 0.1	E ± 0.1	F ± 0.05	P ₀ ± 0.1	P ₁ ± 0.3	Dφ +0.1/-0	W	t ₁ ± 0.05	t ₂ ± 0.1	Reel Quantity
NCCP5555	5.85	5.95	1.75	5.50	4.00	12.00	1.50	12.00 + 0.3	0.40	3.50	1500
NCCP7060	6.30	7.50		7.50				16.00+0.3/-0.1	0.35	3.80	1500
NCCP9070	8.60	9.60		11.50				16.00 + 0.3	0.40	4.60	800
NCCP1211	12.00	13.50						24.00 ± 0.3	0.50	6.40	500
NCCP1513	13.10	15.50				16.00		24.00 ± 0.3	0.40	5.90	500



Performance Passives By Design