

APPROVAL SHEET

WQCF2012 Series
COMMON MODE CHOKE
AEC-Q200

*Contents in this sheet are subject to change without prior notice.

Features

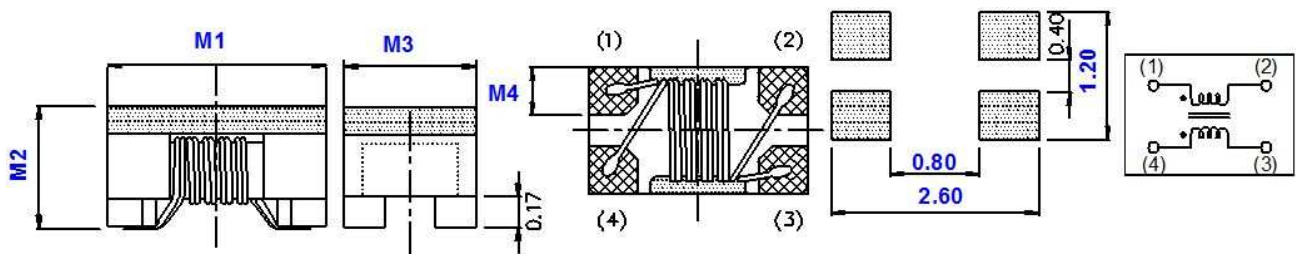
1. Wire wound type common mode choke.
2. Excellent solderability.
3. AEC-Q200

Applications

1. USB line for personal computers and peripheral.
2. USB 2.0 、IEEE1394 、LVDS.
3. Automotive

Shape and Dimension

Unit: mm



SERIES	M1	M2	M3	M4
WQCF2012	2.0±0.2	1.20±0.2	1.20±0.2	0.40(TYP.)

Ordering Information

WQ	CF	2012	Z0	M	670	P	B
Product Code	Series	Dimensions	Series extension	Tolerance	Value	Packing Code	
WQ: Inductor AEC-Q200	COMMON MODE CHOKE	2.0 * 1.2 mm	Z0:STD	M: ± 20%	670 = 67OHM 101 = 100OHM	P=7" Reeled (Embossed tape)	B:STD

Electrical Characteristics

WQCF2012 Series	Z (OHM) @100MHz ±20%	DCR MAX. (Ω)	RATE CURRENT (mA)	Cut-off Frequency (GHz) TYP.	Rated Voltage (Vdc)	Withstand Voltage (Vdc)	Insulation Resistance @125VDC (MOHM) MIN.
WQCF2012Z0M670PB	67	0.25	400	1.0	50	125	10
WQCF2012Z0M750PB	75	0.30	400				
WQCF2012Z0M900PB	90	0.35	330				
WQCF2012Z0M101PB	100	0.35	330				
WQCF2012Z0M121PB	120	0.30	370				
WQCF2012Z0M161PB	160	0.35	350				
WQCF2012Z0M181PB	180	0.35	330				
WQCF2012Z0M201PB	200	0.40	300				
WQCF2012Z0M221PB	220	0.40	300				
WQCF2012Z0M261PB	260	0.40	300				
WQCF2012Z0M361PB	360	0.50	300				
WQCF2012Z0M371PB	370	0.45	280				
WQCF2012Z0M431PB	430	0.55	280				
WQCF2012Z0M601PB	600	0.60	240				
WQCF2012Z0M751PB	750	0.90	220				

TEST INSTRUMENT

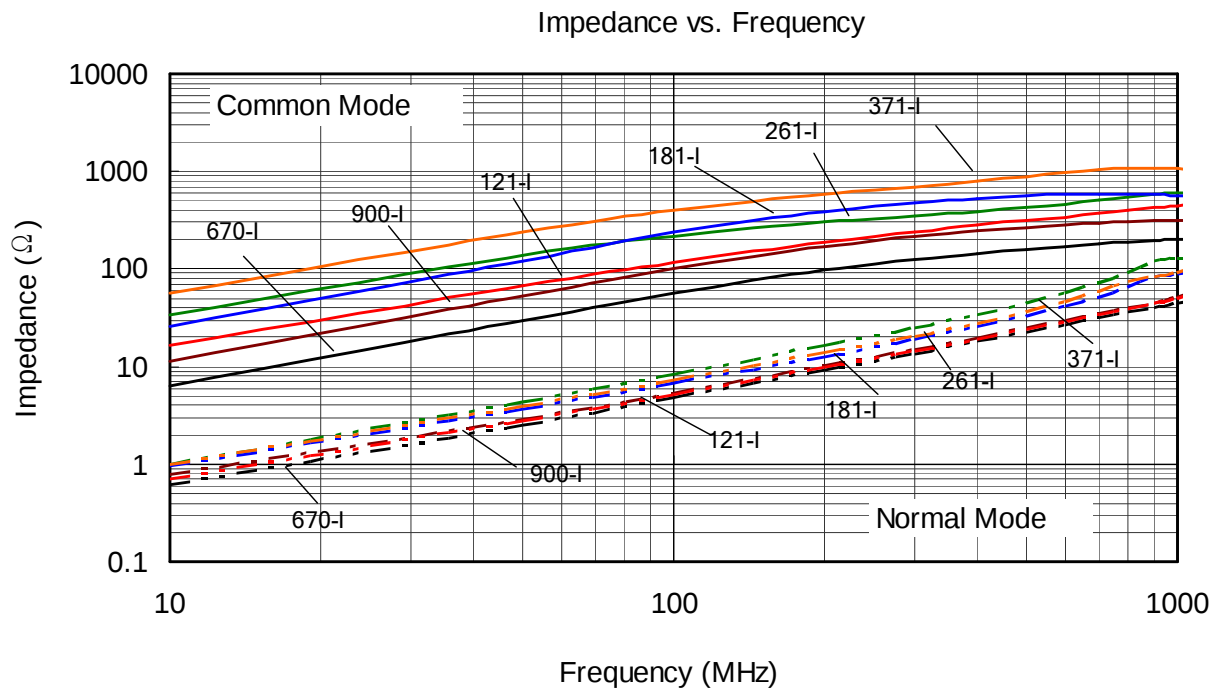
Z Test by Agilent4291B+16197A

DCR Test by Zentech502BC

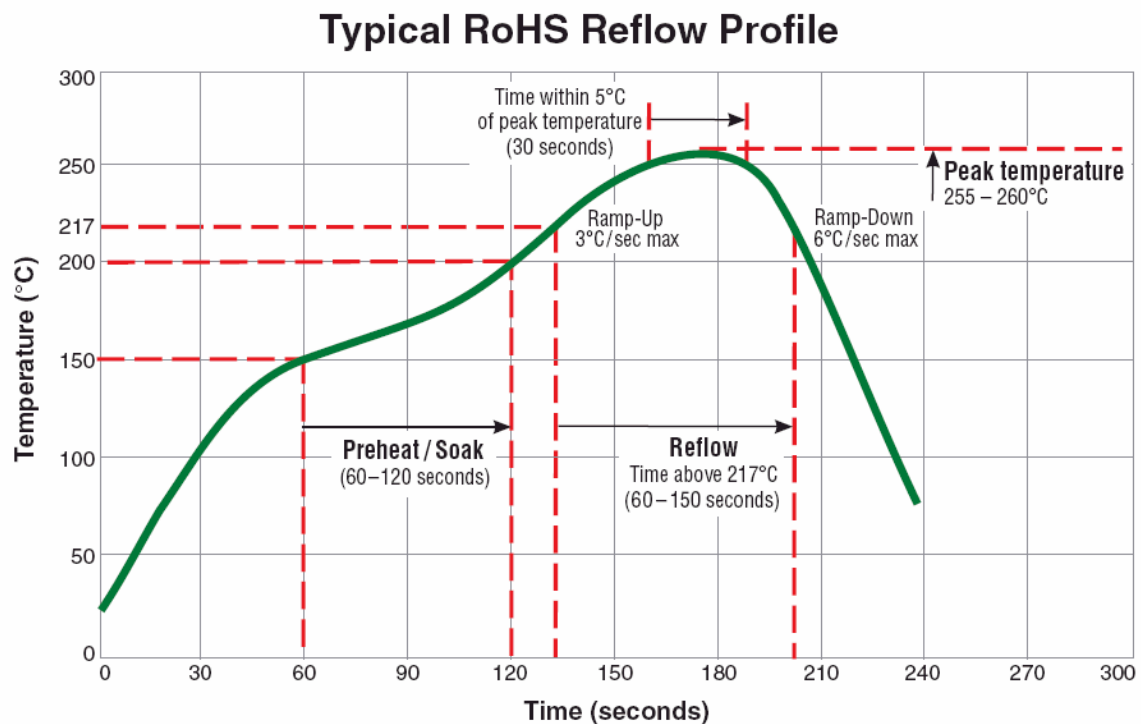
Insulation Resistance Test by Agilent 4338B

OPERATING TEMPERATURE RANGE: -40℃ ~ +125℃

TYPICAL IMPEDANCE VS FREQUENCY



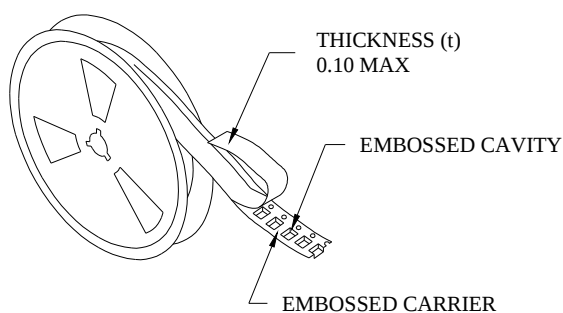
TYPICAL RoHS REFLOW PROFILE



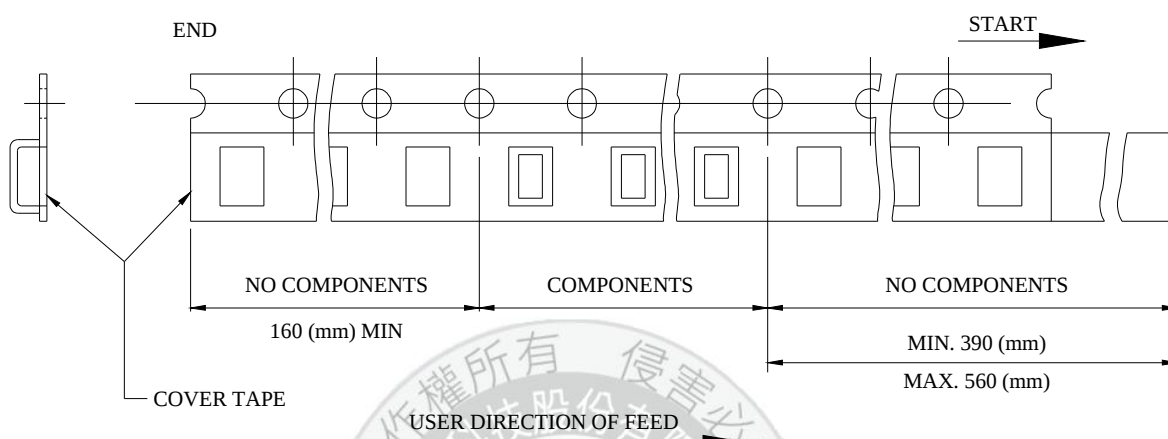
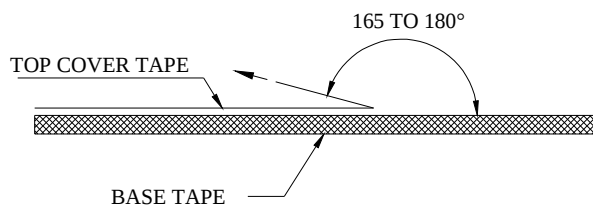
RELIABILITY PERFORMANCE

Test Item	Test Condition	Standard Source
High Temperature Exposure (Storage)	1000 hrs. at rated operating temperature (e.g. 125°C part can be stored for 1000 hrs. @ 125°C. Same applies for 105°C and 85°C. Unpowered. Measurement at 24±4 hours after test conclusion.	MIL-STD-202 Method 108
Temperature Cycling	1000 cycles (-40°C to +125°C). Note: If 85°C part or 105°C part the 1000 cycles will be at that temperature. Measurement at 24±4 hours after test conclusion. 30min maximum dwell time at each temperature extreme. 1 min. maximum transition time.	JESD22 Method JA-104
Biased Humidity	1000 hours 85°C/85%RH. Unpowered. Measurement at 24±4 hours after test conclusion.	MIL-STD-202 Method 103
Operational Life	1000 hrs. @ 105°C. If 85°C or 125°C part will be tested at that temperature. Measurement at 24±4 hours after test conclusion.	MIL-PRF-27
Mechanical Shock	Method 213. Condition C, Peak Value: 100g's, Duration: 6ms, Waveform: Half-sine Velocity Change: 12.3ft/sec	MIL-STD-202 Method 213
Vibration	5g's for 20 minutes, 12 cycles each of 3 orientations. Note: Use 8"X5" PCB, .031" thick, 7 secure points on one long side and 2 secure points at corners of opposite sides. Parts mounted within 2" from any secure point. Test from 10-2000 Hz.	MIL-STD-202 Method 204
Resistance to Soldering Heat	Condition B No pre-heat of samples. Note: Single Wave Solder - Procedure 2 for SMD and Procedure 1 for Leaded with solder within 1.5mm of device body.	MIL-STD-202 Method 210
ESD	Passive Component Human Body Model (HBM) Electrostatic Discharge (ESD) Test. Only direct contact discharge, record the voltage value what the sample can pass.	AEC-Q200-002 Or ISO/DIS10605
Solderability	For both Leaded & SMD. Electrical Test not required. Magnification 50X. Conditions: Leaded: Method A @ 235°C, category 3. SMD: a) Method B, 4 hrs @ 155°C dry heat @ 235°C b) Method B @ 215°C category 3. c) Method D category 3 @ 260°C.	J-STD-002
Flammability	V-0 or V-1 Acceptable	UL-94
Board Flex	60 sec minimum holding time.	AEC-Q200-005
Terminal Strength (SMD)	Force of 900g for 60 seconds.	AEC-Q200-006

Tape & Reel Packaging Dimensions:



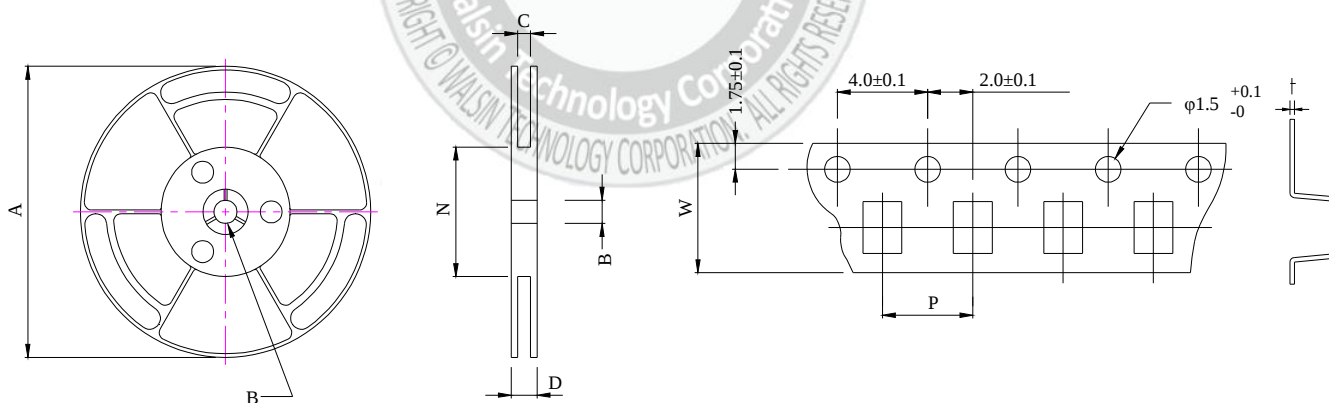
- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 100 GRAMS IN THE ARROW DIRECTION.



■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC

■ DIMENSIONS OF CARRIER TAPE (mm)



UNIT : mm

	A	B	C	D	N	P	W	t
DIM.	178	13.0	8.4	12.5	75	4.0	8.00	0.24
TOL.	±2.0	±0.8	+1.0-0	MAX	±1.5	±0.10	±0.20	±0.01

Quantity per reel : 2K pcs