AEC-Q200

FENG-JUI TECHNOLOGY CO., LTD

F2P322523NVQ1 TYPE

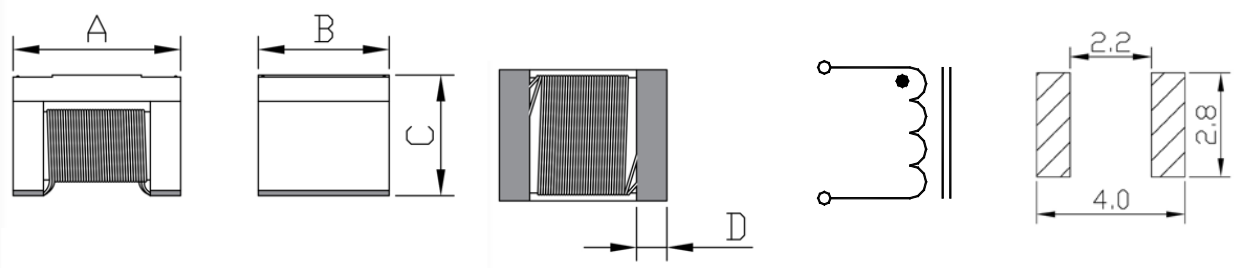
●FEATURE

1. Ensuring consistent high quality and reliability as the result of a completely automated manufacturing process
2. Operating temperature range: –55 to +125°C (including self-temperature rise)
3. Same as MURATA LQW32FTxxx type

●Applications

1. Inductor for use with separate signal and power lines in in-vehicle PoC (Power Over Coax)
2. Compliant with AEC-Q200

●Shape and Dimension and Schematics and Land Patterns(mm)



A= 3.20±0.20 m/m ; B=2.50±0.20 m/m ; C=2.30±0.20 m/m; D=0.58±0.20 m/m

●Specification

PART NO.	INDUCTANCE (uH)	DCR (Ω) MAX	Isat (mA)	Itemp (mA) At 85˚C	Itemp (mA) at 105˚C	Itemp (mA) at 125˚C
F2P322523NVQ1 -4R7M	4.7uH±20%	0.28	850	850	720	400
F2P322523NVQ1 -470M	47uH±20%	0.90	300	500	300	100

Note1. Measurement ambient temperature of electrical : at 25℃

Note2. Test equipment: HP4294A, 1MHz, 0.25V

Note3. Isat: when based on the inductance change rate (30% below the nominal inductance value)

Note4. Itemp: When based on the temperature increase (temperature increase of 40°C by self heating)

Note5.Packaging: Taping ; Quantity: 1500 Pieces/reel

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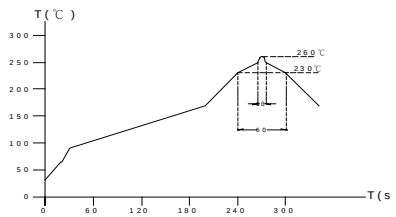
GENERAL CHARACTERISTICS

1. Operating temperature range: -55 TO + 125℃(Includes temperature when the coil is heated)
2. High temperature exposure(storage) refer MIL-STD-202 Method 108: 1000 hrs at rated operating temperature(e.g. 125℃). Part can be stored for 1000 hrs @125℃. Unpowered. Measurement at 24±4 hours after test conclusion.
3. Temperature cycling refer JESD22 Method JA-104: 1000 cycles(-55 TO + 125℃). Measurement at 24±4 hours after test conclusion. 30 min maximum dwell time at each temp. extreme. 1 min. maximum transition time.
4. Biased Humidity refer MIL-STD-202 Method 103: 1000 hours 85℃/85%RH. Unpowered. Measurement at 24±4 hours after test conclusion.
5. Operational Life refer MIL-PRF-27: 1000 hrs. at 125 ℃ tested. Measurement at 24±4 hours after test conclusion.
6. External Visual refer MIL-STD-883 Method 2009: Inspect device construction, marking and workmanship.
7. Physical Dimension refer JESD22 Method JB-100: Verify physical dimensions to the applicable device detail specification.
8. Resistance to Solvents refer MIL-STD-202 Method 215: Add aqueous wash chemical - OKEM clean or equivalent.
9. Mechanical Shock refer MIL-STD-202 Method 213: Figure 1 of Method 213. Condition C.
10. Vibration refer MIL-STD-202 Method 204: 5g;s for 20 minutes, 12 cycles each of 3 orientations. Test from 10-2000 Hz.
11. Resistance to soldering Heat refer MIL-STD-202 Method 210: Condition B No pre-heat of samples. Single wave solder-procedure 2 for SMD and procedure 1 for leaded with solder within 1.5mm of device body.
12. ESD refer AEC-Q200-002 or ISO/DIS 10605: Direct contact discharge 2kV.
13. Solderability refer J-STD-002: For both Leaded & SMD. Magnification 50X. Conditions: Leaded, Method A@235℃,category 3 ; SMD, a)Method B, 4hrs@125℃ dry heat @235℃, b)Method B@215℃ category 3., c)Method D category 3@260℃
14. Electrical Characterization refer spec: Show Min, Max Mean and Standard deviation at room from Min and Max temperature.
15. Flammability refer UL-94: V-0 or V-1 Acceptable.
16. Board Flex refer AEC-Q200-005: 60 sec minimum holding time.
17. Terminal Strength(SMD) refer AEC-Q200-006
18. Reflow profile recommend:

Lead-free heat endurance test



Lead-free the recommended reflow condition