

PIC07030CYDQ1 TYPE

●FEATURE

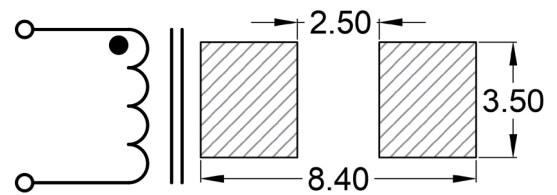
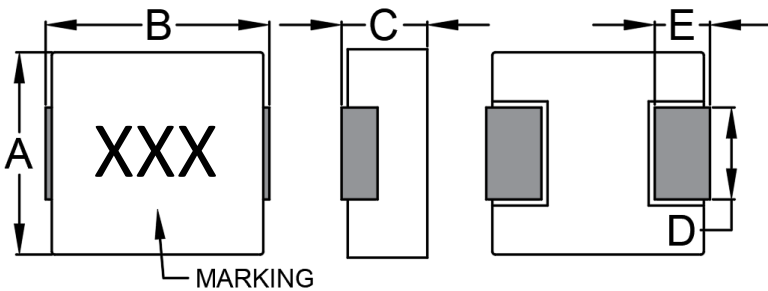
1. Magnetically shielded, low EMI
2. High current carrying capacity, Low core losses
3. AEC-Q200 Qualified

●Applications

1. Notebook, server application, High current power supplier

●Shape and Dimension

●Schematics and Land Patterns(mm)



A=6.60±0.30mm ; B=7.30±0.30mm ; C=2.80±0.20mm ; D= 3.00±0.30mm ; E=1.80±0.30mm

●Specification

P/N	L (uH)	RDC (mΩ) Typ.	RDC (mΩ) Max.	Isat (A)	Irms (A)
PIC07030CYDQ1-R10N	0.10±30%	1.20	1.70	60.0	32.5
PIC07030CYDQ1-R15N	0.15±30%	1.50	1.90	45.0	27.0
PIC07030CYDQ1-R22N	0.22±30%	2.10	2.80	40.0	23.0
PIC07030CYDQ1-R33M	0.33±20%	3.50	3.90	32.0	20.0
PIC07030CYDQ1-R47M	0.47±20%	4.00	4.20	26.0	17.5
PIC07030CYDQ1-R56M	0.56±20%	4.70	5.00	25.5	16.5
PIC07030CYDQ1-R68M	0.68±20%	4.80	5.50	25.0	15.5
PIC07030CYDQ1-R82M	0.82±20%	6.70	8.00	24.0	13.0
PIC07030CYDQ1-1R0M	1.00±20%	8.30	10.0	22.0	11.0
PIC07030CYDQ1-1R5M	1.50±20%	13.0	15.0	18.0	9.00
PIC07030CYDQ1-2R2M	2.20±20%	18.0	20.0	14.0	8.00
PIC07030CYDQ1-3R3M	3.30±20%	28.0	30.0	13.5	6.00
PIC07030CYDQ1-4R7M	4.70±20%	37.0	40.0	10.0	5.50
PIC07030CYDQ1-5R6M	5.60±20%	43.0	48.0	9.00	5.00
PIC07030CYDQ1-6R8M	6.80±20%	54.0	60.0	8.00	4.50
PIC07030CYDQ1-8R2M	8.20±20%	64.0	68.0	7.50	4.00
PIC07030CYDQ1-100M	10.0±20%	75.0	85.0	6.00	3.50

P/N	L (uH)	RDC (mΩ) Typ.	RDC (mΩ) Max.	Isat (A)	Irms (A)
PIC07030CYDQ1-120M	12.0±20%	81.0	93.0	5.50	3.30
PIC07030CYDQ1-150M	15.0±20%	107	123	4.00	3.00
PIC07030CYDQ1-180M	18.0±20%	140	160	4.00	2.50
PIC07030CYDQ1-220M	22.0±20%	165	190	3.50	2.00
PIC07030CYDQ1-270M	27.0±20%	185	220	3.00	2.00
PIC07030CYDQ1-330M	33.0±20%	200	240	2.50	2.00
PIC07030CYDQ1-400M	40.0±20%	283	340	2.30	1.90
PIC07030CYDQ1-470M	47.0±20%	302	363	2.00	1.75

Note1. Measurement frequency of Inductance value : at 100kHz, 1.0V

Note2. Measurement ambient temperature of L, DCR and IDC : at 25°C

Note3. Isat: DC current at which the inductance drops 30%(Typ.) from its value without current

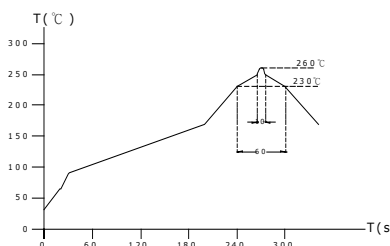
Note4. Irms: Average current for 40°C temperature rise from 25°C ambient(Typ.)

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

GENERAL CHARACTERISTICS

1. Operating temperature range: -55 TO + 125°C (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°C). Part can be stored for 1000 hrs @125°C. Unpowered. Measurement at 24±4 hours after test conclusion.
3. Temperature cycling refer JESD22 Method JA-104: 1000 cycles(-55 TO + 125°C). 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°C/85%RH. Unpowered. Measurement at 24±4 hours after test conclusion.
5. Operational Life refer MIL-PRF-27: 1000 hrs. at 125 °C 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°C, category 3 ; SMD, a)Method B, 4hrs@125°C dry heat @235°C, b)Method B@215°C category 3., c)Method D category 3@260°C
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

