An ISO 9001 Company

HIGH TEMP AEC-Q200 INDUCTORS
– EPI13067Q1 SERIES

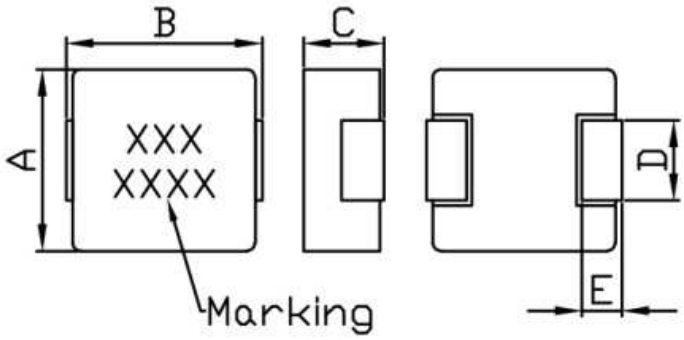
●FEATURE

1. Shielded construction，Frequency range up to 5MHz
2. AEC-Q200 Grade 1 qualified

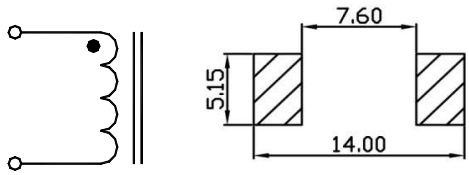
●Applications

1. DC-DC Automotive

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=12.90m/m Max ; B=14.00m/m Max ; C=6.70m/m Max. ; D=refer Note.7; E=2.40m/m Ref.

●Specification

P/N	L (μH)	RDC (mΩ) Typical	RDC (mΩ)Max	Isat (A)	Irms (A)
EPI13067Q1-R10N	0.10±30%	0.25	0.50	80.0	60.0
EPI13067Q1-R22M	0.22±20%	0.45	0.70	75.0	53.0
EPI13067Q1-R30M	0.30±20%	0.50	0.80	72.0	48.0
EPI13067Q1-R33M	0.33±20%	0.51	0.80	65.0	46.0
EPI13067Q1-R40M	0.40±20%	0.60	1.00	64.0	44.0
EPI13067Q1-R47M	0.47±20%	0.75	1.20	63.0	41.0
EPI13067Q1-R56M	0.56±20%	0.90	1.40	62.0	37.0
EPI13067Q1-R68M	0.68±20%	1.00	1.60	51.0	35.0
EPI13067Q1-R82M	0.82±20%	1.55	1.90	50.0	33.0
EPI13067Q1-1R0M	1.0±20%	1.85	2.00	49.0	32.0
EPI13067Q1-1R2M	1.2±20%	2.30	2.50	45.0	30.0
EPI13067Q1-1R5M	1.5±20%	2.30	3.00	40.0	25.0
EPI13067Q1-2R2M	2.2±20%	3.50	4.20	33.0	22.0
EPI13067Q1-3R3M	3.3±20%	5.50	6.80	29.0	18.0
EPI13067Q1-4R7M	4.7±20%	9.80	11.2	25.0	13.5

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P/N	L (μH)	RDC (mΩ) Typical	RDC (mΩ)Max	Isat (A)	Irms (A)
EPI13067Q1-5R6M	5.6±20%	10.5	11.5	21.0	12.0
EPI13067Q1-6R8M	6.8±20%	13.8	14.9	16.5	11.5
EPI13067Q1-8R2M	8.2±20%	15.1	16.6	16.0	10.5
EPI13067Q1-100M	10±20%	17.5	18.5	15.5	10.0
EPI13067-150M	15±20%	27.5	32	11.0	7.0
EPI13067-220M	22±20%	35	45	8.0	5.0
EPI13067-330M	33±20%	72	82	7.0	4.5
EPI13067-470M	47±20%	85	90	6.5	4.0
EPI13067-680M	68±20%	160	172	6.0	3.0
EPI13067-101M	100±20%	240	265	4.0	2.5

Note1. Measurement frequency of Inductance value : at 100KHz

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

Note3. Isat: DC current at which the inductance drops 20%(typ) from its value without current

Note4. Irms: Average current for 40℃ temperature rise from 25℃ ambient(typical)

Note5. Inductance tolerance: M: ±20%

Note6. Packaging: Taping ; Quantity: 250pcs/reel

Note7. D Dimension range: R10~1R5, D=4.0±0.5mm；2R2, D=3.0±0.5mm；3R3~100, D=4.7±0.3 mm

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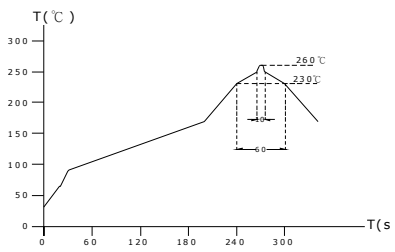
GENERAL CHARACTERISTICS

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