P/N: FASDR1006-271K0R9

## Recommended Soldering Temperature Graph.



Electrical Characteristics(at $25^{\circ} \mathrm{C}$ )

| Inductance <br> $1 \mathrm{KHz}, 0.25 \mathrm{~V}$ | DC Resistor | Isat <br> (A Max) |
| :---: | :---: | :---: |
| $270 \mathrm{uH} \pm 10 \%$ | $0.970 \Omega \mathrm{Max}$ | $\mathrm{L}(0.90 \mathrm{~A}) \geq 90 \%{ }^{*} \mathrm{~L} 0 \mathrm{~A}$ |

${ }^{* * *}$ Operating Temperature: $-40^{\circ} \mathrm{C} \sim+125^{\circ} \mathrm{C}$
(Temperature rise included)
${ }^{* * *}$ Storage Temperature: $-40^{\circ} \mathrm{C} \sim+125^{\circ} \mathrm{C}$
***Storage Humidity:RH10\%~70\%
***Weight:Approx 2.02g.

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| (-) | Make: Qiumei.Liu | DRAWING TITLE <br> SMD NON-SHIELDED POWER INDUCTORS | Customer Name: |
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| Tolerances unless otherwise specified: (. X$) \pm 0.50 \quad(. \mathrm{XX}) \pm 0.25$ Unit of measurement: mm |  |  | Document/Rev: 00 |
|  | Checked: Beson. zhan |  | Specification Sheet: 1 of 4 |
|  | Approved: Anson. zhan | Material Number: A341006XS260 | Date of Recognition: July./21/2020 |

Packing Specfications(Unit:mm):

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| A0 | 9.40 |
| :---: | :---: |
| B0 | 10.4 |
| P | 16.0 |
| P0 | 4.00 |
| P2 | 2.00 |
| E | 1.75 |
| D0 | 1.50 |
| D1 | 1.50 |
| K0 | 7.00 |
| $W$ | 24.0 |
|  |  | 400 mm



Quantity:500pcs/Reel



PE bag



Outer cases: 3000pcs/box insufficient boxes filled with inner boxes or fillers

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| Ltem | Specified value | Test methods |
| :---: | :---: | :---: |
| High temperature <br> Storage test <br> Reference documents: <br> MIL-STD-202G Method 108A | 1.No case deformation or change in appearance. <br> 2. $\Delta \mathrm{L} / \mathrm{L} \leq 10 \%$. <br> 3. $\Delta \mathrm{Q} / \mathrm{Q} \leq 30 \%$. <br> 4. $\triangle$ DCR/DCR $\leq 10 \%$. | Temperature: $85 \pm 2^{\circ} \mathrm{C}$ Time: $96 \pm 2$ hours. <br> Tested not less than 1 hour, not more than 2 hours at room temperature. |
| Low temperature Storage test. <br> Referencedocuments: <br> IEC 68-2-1A 6.16 .2 | 1.No case deformation or change in appearance. <br> 2. $\Delta \mathrm{L} / \mathrm{L} \leq 10 \%$. <br> 3. $\Delta \mathrm{Q} / \mathrm{Q} \leq 30 \%$. <br> 4. $\triangle$ DCR/DCR $\leq 10 \%$. | Temperature: $25 \pm 2^{\circ} \mathrm{C}$ Time: $96 \pm 2$ hours. <br> Tested not less than 1 hour, not more than 2 hours at room temperature. |
| Humidity test Reference Documents: MIL-STD-202G Method 103B | 1.No case deformation or change in appearance. <br> 2. $\Delta \mathrm{L} / \mathrm{L} \leq 10 \%$. <br> 3. $\Delta \mathrm{Q} / \mathrm{Q} \leq 30 \%$. <br> 4. $\triangle$ DCR/DCR $\leq 10 \%$. | 1. Dry oven at a temperature of $40^{\circ} \pm 5^{\circ} \mathrm{C}$ for 24 hours. <br> 2.Measurements At the end of this period <br> 3. Exposure:Temperature: $40 \pm 2^{\circ} \mathrm{C}$, Humidity: $93 \pm 3 \%$ RH Time: $96 \pm 2$ hours. <br> 4.Tested while the specimens are still in the chamber. <br> 5.Tested not less than 1 hour, nor more than 2 hours at room temperature. |
| Heat endurance of Reflow soldering | 1.No case deformation or change in appearance. <br> 2. $\Delta \mathrm{L} / \mathrm{L} \leq 10 \%$. <br> 3. $\Delta \mathrm{Q} / \mathrm{Q} \leq 30 \%$. <br> 4. $\triangle$ DCR/DCR $\leq 10 \%$. | Preheat: $150^{\circ} \mathrm{C}, 60$ second. <br> Solder:Sn/Ag/Cu. <br> Solder:Temperature: $260 \pm 5^{\circ} \mathrm{C}$. <br> Flux:Rosin flux. <br> Reflow peak time 10 second at $260^{\circ} \mathrm{C}$ |


| Ltem | Specified value | Test methods |
| :---: | :---: | :---: |
| Thermal shock test Reference documents: MIL-STD-202G Method 107G | 1.No case deformation or change in appearance. <br> 2. $\Delta \mathrm{L} / \mathrm{L} \leq 10 \%$. <br> 3. $\Delta \mathrm{Q} / \mathrm{Q} \leq 30 \%$. <br> 4. $\triangle$ DCR/DCR $\leq 10 \%$. <br> For T:weighes $28 \mathrm{~g}: 15 \mathrm{Min}$ <br> $28 \mathrm{~g} \leq$ weight $\leq 136 \mathrm{~g}: 30 \mathrm{Min}$ | First- $40^{\circ} \mathrm{C}$ for T time, next $+125^{\circ} \mathrm{C}$ Ttime as 1 cycle. Go through 20 cycles. |
| Solderability test <br> Reference documents: <br> MIL-STD-202G Method 208H <br> IPC J-STD-002B | Terminals area must have $95 \%$ Min. Solder coverage. | Dip pads in flux then dip in solder pot at $245 \pm 5^{\circ} \mathrm{C}$ for 5 second. <br> Soler:Sn(93.5)Ag(3.5). <br> Flux:Rosin flux. |
| Vibration test <br> Reference documents: <br> MIL-STD-202G Method 201A | 1.No case deformation or change in appearance. $\text { 2. } \Delta \mathrm{L} / \mathrm{L} \leq 10 \% \text {. }$ <br> 3. $\Delta \mathrm{Q} / \mathrm{Q} \leq 30 \%$. <br> 4. $\triangle$ DCR/DCR $\leq 10 \%$. | Apply frequency $10 \sim 55 \mathrm{~Hz} .0 .75 \mathrm{~mm}$ amplitude in each of perpendicular direction for 2 hours. (total 6 hours). |
| Drop test Reference documents: MIL-STD-202G Method 203G | 1.No case deformation or change in appearance. <br> 2. $\Delta \mathrm{L} / \mathrm{L} \leq 10 \%$. <br> 3. $\Delta \mathrm{Q} / \mathrm{Q} \leq 30 \%$. <br> 4. $\triangle$ DCR/DCR $\leq 10 \%$. <br> For T:weighe $\leq 28 \mathrm{~g}: 15 \mathrm{Min}$ <br> 28g $\leq$ weight $\leq 136 \mathrm{~g}: 30 \mathrm{Min}$ | Packaged \& Drop down from 1 m with $981 \mathrm{~m} / \mathrm{s} 2(100 \mathrm{G})$ attitude in 1 angle 1 ridges \& 2 surfaces orientations. |
| Terminal strength push test Reference documents: JIS C 5321:1997 | Pulling test: <br> DEFINE:A:sectional area <br> of terminal <br> $\mathrm{A} \leq 8(\mathrm{SqM})$ <br> Force $\geq 5 \mathrm{~N}$ time: 30 sec <br> 8(Sq M) $<\mathrm{A} \leq 20$ ( Sq M) <br> Force $\geq 10 \mathrm{~N}$ time:10sec <br> $20(S q M)<A$ force $\geq 20 N$ <br> time:10sec <br> Bending test: <br> Soldering the products on PCB,after the pulling testand bending test, terminal should not pull off | Bend the testing PCB at middle point, the deflection shall be 2 mm |


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| Resistance to solvent test <br> Reference documents: <br> IEC 68-2-45:1993 | No case deformation or <br> change in appearance,or <br> obliteration of marking | To dip parts into IPA solvent for 5 5 0.5Min, <br> then drying them atroom temp for 5 Min,at <br> last,to brushing making 10 times. |
| Electronic characteristic test <br> of major products | Refer to catalogue of <br> specific products | Refer to catalogue of specific products |
| Overload test <br> Reference documents: | 1.During the test no <br> smoke,no peculiar,smell, <br> no fire | Apply twice as rated current for 5 minutes. |

## Recommended solderability temperature profile:



Use rosin-based flux
Don't use high acidic flux with halide content exceeding $0.2(\mathrm{wt}) \%$ (chlorine conversion value). Use lead-free solder, use $\mathrm{Sn}-3.0 \mathrm{Ag}-0.5 \mathrm{Cu}$ solde
Standard thickness of solder paste:0.12-0.15mm

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