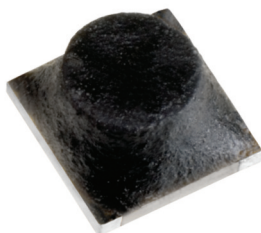
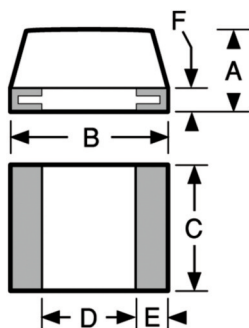


**SERIES****160R**  
**160****Micro i® Chip Inductors**

Actual Size

**Military Specifications** MIL-PRF-83446/38**Physical Parameters**

|   | Inches            | Millimeters    |
|---|-------------------|----------------|
| A | 0.080 Max.        | 2.03 Max.      |
| B | 0.145 to 0.155    | 3.68 to 3.94   |
| C | 0.115 to 0.125    | 2.92 to 3.18   |
| D | 0.070 Min.        | 1.78 Min.      |
| E | 0.020 to 0.030    | 0.508 to 0.762 |
| F | 0.020 Max. (Typ.) | 0.51 Max.      |

**Current Rating at 90°C Ambient** 35°C Rise**Operating Temperature Range** -55°C to +125°C**Maximum Power Dissipation at 90°C** 0.175 W**Termination** Standard: Tin/Lead Sn63

**Notes** 1) Designed specifically for reflow soldering and other high temperature processes with metallized edges to exhibit solder fillet. 2) Optional marking is available. Parts can be printed with dash number (ie 100, 120, etc.). Add suffix M to part number.

**For inductance values** above 560μH, consult factory.

**Mechanical Configuration** Units are epoxy encapsulated. Contact area for reflow are solder coated. Internal connections are thermal compression bonded.

**Packaging** Bulk only**Made in the U.S.A.**

Optional Tolerances: J = 5% H = 3% G = 2% F = 1%

\*Complete part # must include series # PLUS the dash #

| DASH NUMBER*                                | MIL DASH # | INDUCTANCE (μH) | TOLERANCE | Q MINIMUM | TEST FREQUENCY (MHz) | SRF MINIMUM (MHz) | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAXIMUM (mA) |
|---------------------------------------------|------------|-----------------|-----------|-----------|----------------------|-------------------|------------------------------|-----------------------------|
| <b>M83446/38 – SERIES 160 PHENOLIC CORE</b> |            |                 |           |           |                      |                   |                              |                             |
| -100MS                                      | 01         | 0.010           | ± 20%     | 48        | 150                  | 900               | 0.050                        | 1590                        |
| -120MS                                      | 02         | 0.012           | ± 20%     | 48        | 150                  | 900               | 0.055                        | 1515                        |
| -150MS                                      | 03         | 0.015           | ± 20%     | 48        | 150                  | 900               | 0.060                        | 1450                        |
| -180MS                                      | 04         | 0.018           | ± 20%     | 48        | 150                  | 900               | 0.065                        | 1395                        |
| -220MS                                      | 05         | 0.022           | ± 20%     | 48        | 100                  | 900               | 0.070                        | 1345                        |
| -270MS                                      | 06         | 0.027           | ± 20%     | 48        | 100                  | 900               | 0.075                        | 1295                        |
| -330MS                                      | 07         | 0.033           | ± 20%     | 48        | 100                  | 900               | 0.075                        | 1295                        |
| -390MS                                      | 08         | 0.039           | ± 20%     | 48        | 100                  | 900               | 0.080                        | 1255                        |
| -470MS                                      | 09         | 0.047           | ± 20%     | 48        | 100                  | 850               | 0.085                        | 1220                        |
| -560MS                                      | 10         | 0.056           | ± 20%     | 48        | 100                  | 800               | 0.088                        | 1195                        |
| -680MS                                      | 11         | 0.068           | ± 20%     | 48        | 100                  | 750               | 0.093                        | 1165                        |
| -820MS                                      | 12         | 0.082           | ± 20%     | 48        | 100                  | 700               | 0.095                        | 1150                        |
| <b>M83446/38 – SERIES 160 IRON CORE</b>     |            |                 |           |           |                      |                   |                              |                             |
| -101KS                                      | 13         | 0.100           | ± 10%     | 50        | 25.0                 | 600               | 0.075                        | 1295                        |
| -121KS                                      | 14         | 0.120           | ± 10%     | 50        | 25.0                 | 550               | 0.075                        | 1295                        |
| -151KS                                      | 15         | 0.150           | ± 10%     | 50        | 25.0                 | 420               | 0.085                        | 1220                        |
| -181KS                                      | 16         | 0.180           | ± 10%     | 50        | 25.0                 | 390               | 0.10                         | 1125                        |
| -221KS                                      | 17         | 0.220           | ± 10%     | 50        | 25.0                 | 340               | 0.11                         | 1070                        |
| -271KS                                      | 18         | 0.270           | ± 10%     | 50        | 25.0                 | 290               | 0.12                         | 1025                        |
| -301KS                                      | 19         | 0.300           | ± 10%     | 50        | 25.0                 | 250               | 0.13                         | 985                         |
| -331KS                                      | 20         | 0.330           | ± 10%     | 50        | 25.0                 | 230               | 0.14                         | 950                         |
| -361KS                                      | 21         | 0.360           | ± 10%     | 50        | 25.0                 | 220               | 0.15                         | 915                         |
| -391KS                                      | 22         | 0.390           | ± 10%     | 50        | 25.0                 | 210               | 0.16                         | 890                         |
| -421KS                                      | 23         | 0.430           | ± 10%     | 50        | 25.0                 | 200               | 0.17                         | 860                         |
| -471KS                                      | 24         | 0.470           | ± 10%     | 50        | 25.0                 | 190               | 0.18                         | 835                         |
| -561KS                                      | 25         | 0.560           | ± 10%     | 50        | 25.0                 | 180               | 0.20                         | 795                         |
| -681KS                                      | 26         | 0.680           | ± 10%     | 50        | 25.0                 | 170               | 0.23                         | 740                         |
| -821KS                                      | 27         | 0.820           | ± 10%     | 50        | 25.0                 | 150               | 0.26                         | 695                         |
| -102JS                                      | 28         | 1.00            | ± 5%      | 50        | 25.0                 | 140               | 0.34                         | 610                         |
| -122JS                                      | 29         | 1.20            | ± 5%      | 36        | 7.9                  | 130               | 0.42                         | 545                         |
| -152JS                                      | 30         | 1.50            | ± 5%      | 36        | 7.9                  | 120               | 0.56                         | 475                         |
| -182JS                                      | 31         | 1.80            | ± 5%      | 36        | 7.9                  | 100               | 0.76                         | 410                         |
| -222JS                                      | 32         | 2.20            | ± 5%      | 36        | 7.9                  | 98                | 0.93                         | 370                         |
| -272JS                                      | 33         | 2.70            | ± 5%      | 40        | 7.9                  | 91                | 1.2                          | 325                         |
| -332JS                                      | 34         | 3.30            | ± 5%      | 40        | 7.9                  | 76                | 1.3                          | 310                         |
| -392JS                                      | 35         | 3.90            | ± 5%      | 47        | 7.9                  | 48                | 1.5                          | 290                         |
| -472JS                                      | 36         | 4.70            | ± 5%      | 47        | 7.9                  | 46                | 1.7                          | 275                         |
| -562JS                                      | 37         | 5.60            | ± 5%      | 44        | 7.9                  | 42                | 1.8                          | 270                         |
| -682JS                                      | 38         | 6.80            | ± 5%      | 40        | 7.9                  | 39                | 1.9                          | 255                         |
| -822JS                                      | 39         | 8.20            | ± 5%      | 40        | 7.9                  | 30                | 2.4                          | 230                         |
| -103JS                                      | 40         | 10.0            | ± 5%      | 46        | 7.9                  | 26                | 3.2                          | 200                         |
| -123JS                                      | 41         | 12.0            | ± 5%      | 41        | 2.5                  | 24                | 3.7                          | 185                         |
| -153JS                                      | 42         | 15.0            | ± 5%      | 46        | 2.5                  | 23                | 3.8                          | 180                         |
| -183JS                                      | 43         | 18.0            | ± 5%      | 46        | 2.5                  | 22                | 4.2                          | 175                         |
| -223JS                                      | 44         | 22.0            | ± 5%      | 47        | 2.5                  | 18                | 5.5                          | 150                         |
| -273JS                                      | 45         | 27.0            | ± 5%      | 47        | 2.5                  | 17                | 6.1                          | 145                         |
| -333JS                                      | 46         | 33.0            | ± 5%      | 47        | 2.5                  | 13                | 6.6                          | 140                         |
| -393JS                                      | 47         | 39.0            | ± 5%      | 50        | 2.5                  | 12                | 7.0                          | 135                         |
| <b>M83446/38 – SERIES 160 FERRITE CORE</b>  |            |                 |           |           |                      |                   |                              |                             |
| -473JS                                      | 48         | 47.0            | ± 5%      | 50        | 2.5                  | 11.0              | 8.3                          | 125                         |
| -563JS                                      | 49         | 56.0            | ± 5%      | 50        | 2.5                  | 10.0              | 8.9                          | 120                         |
| -683JS                                      | 50         | 68.0            | ± 5%      | 50        | 2.5                  | 9.1               | 13.0                         | 100                         |
| -823JS                                      | 51         | 82.0            | ± 5%      | 50        | 2.5                  | 8.6               | 14.0                         | 95                          |
| -104JS                                      | 52         | 100.0           | ± 5%      | 47        | 2.5                  | 7.6               | 16.0                         | 90                          |
| -124JS                                      | 53         | 120.0           | ± 5%      | 30        | 0.79                 | 6.8               | 17.0                         | 85                          |
| -154JS                                      | 54         | 150.0           | ± 5%      | 32        | 0.79                 | 5.6               | 18.0                         | 80                          |
| -184JS                                      | 55         | 180.0           | ± 5%      | 32        | 0.79                 | 4.5               | 22.0                         | 75                          |
| -224JS                                      | 56         | 220.0           | ± 5%      | 32        | 0.79                 | 4.0               | 28.0                         | 70                          |
| -274JS                                      | 57         | 270.0           | ± 5%      | 32        | 0.79                 | 3.8               | 32.0                         | 65                          |
| -334JS                                      | 58         | 330.0           | ± 5%      | 32        | 0.79                 | 3.5               | 44.0                         | 55                          |
| -394JS                                      | 59         | 390.0           | ± 5%      | 32        | 0.79                 | 3.4               | 48.0                         | 50                          |
| -474JS                                      | 60         | 470.0           | ± 5%      | 28        | 0.79                 | 3.2               | 75.0                         | 42                          |
| -564JS                                      | 61         | 560.0           | ± 5%      | 28        | 0.79                 | 2.8               | 81.0                         | 40                          |

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Delevan:](#)

[M83446/38-28F](#)