



# SURFACE-MOUNT WIRE-WOUND CERAMIC CHIP INDUCTORS

## AISC-1008 SERIES

### FEATURES:

- Construction: Ceramic to 1.2  $\mu$  H  
Ferrite 1.5  $\mu$  H to 10  $\mu$  H
- High frequency design
- Excellent Q values
- Excellent SRF
- High reliability
- Excellent thermal stability

### OPTIONS:

- Packaging: Tape & Reel is standard (Qty: 3000 pcs)  
Bulk packaging available for smaller quantities
- Tolerance: 10% and 5% is standard, tighter tolerances available

### COMMON APPLICATIONS:

- Modems
- Mobile Radios
- Cordless Telephones
- Global Positioning Systems
- Telecommunications Systems

### ELECTRICAL CHARACTERISTICS:

| Part Number     | L ( $\mu$ H) | Tol %    | Q Min | Test Freq MHz | SRF MHz Min | DCR $\Omega$ Max | IDC Max mA | Part Number    | L ( $\mu$ H) | Tol %    | Q Min | Test Freq MHz | SRF MHz Min | DCR $\Omega$ Max | IDC Max mA |
|-----------------|--------------|----------|-------|---------------|-------------|------------------|------------|----------------|--------------|----------|-------|---------------|-------------|------------------|------------|
| AISC-1008-0039K | .0039        | $\pm$ 10 | 50    | 1500          | 6000        | 0.035            | 1000       | AISC-1008-R22J | 0.22         | $\pm$ 5  | 45    | 100           | 700         | 0.840            | 500        |
| AISC-1008-0047K | .0047        | $\pm$ 10 | 50    | 1500          | 6000        | 0.045            | 1000       | AISC-1008-R24J | 0.24         | $\pm$ 5  | 45    | 100           | 600         | 0.880            | 500        |
| AISC-1008-0056K | .0056        | $\pm$ 10 | 50    | 1000          | 6000        | 0.080            | 1000       | AISC-1008-R27J | 0.27         | $\pm$ 5  | 45    | 100           | 600         | 0.910            | 500        |
| AISC-1008-0082K | .0082        | $\pm$ 10 | 50    | 1000          | 5000        | 0.050            | 1000       | AISC-1008-R33J | 0.33         | $\pm$ 5  | 45    | 100           | 570         | 1.050            | 450        |
| AISC-1008-010J  | 0.010        | $\pm$ 5  | 50    | 500           | 4100        | 0.080            | 1000       | AISC-1008-R39J | 0.39         | $\pm$ 5  | 45    | 100           | 500         | 1.120            | 470        |
| AISC-1008-012J  | 0.012        | $\pm$ 5  | 50    | 500           | 3300        | 0.090            | 1000       | AISC-1008-R47J | 0.47         | $\pm$ 5  | 45    | 100           | 450         | 1.190            | 470        |
| AISC-1008-015J  | 0.015        | $\pm$ 5  | 50    | 500           | 2500        | 0.100            | 1000       | AISC-1008-R56J | 0.56         | $\pm$ 5  | 45    | 100           | 415         | 1.330            | 400        |
| AISC-1008-018J  | 0.018        | $\pm$ 5  | 50    | 350           | 2500        | 0.110            | 1000       | AISC-1008-R62J | 0.62         | $\pm$ 5  | 45    | 100           | 375         | 1.400            | 400        |
| AISC-1008-022J  | 0.022        | $\pm$ 5  | 55    | 350           | 2400        | 0.120            | 1000       | AISC-1008-R68J | 0.68         | $\pm$ 5  | 45    | 100           | 375         | 1.470            | 400        |
| AISC-1008-027J  | 0.027        | $\pm$ 5  | 55    | 350           | 1600        | 0.130            | 1000       | AISC-1008-R75J | 0.75         | $\pm$ 5  | 45    | 100           | 360         | 1.540            | 360        |
| AISC-1008-033J  | 0.033        | $\pm$ 5  | 60    | 350           | 1600        | 0.140            | 1000       | AISC-1008-R82J | 0.82         | $\pm$ 5  | 45    | 100           | 350         | 1.610            | 400        |
| AISC-1008-039J  | 0.039        | $\pm$ 5  | 60    | 350           | 1500        | 0.150            | 1000       | AISC-1008-R91J | 0.91         | $\pm$ 5  | 35    | 50            | 320         | 1.680            | 380        |
| AISC-1008-047J  | 0.047        | $\pm$ 5  | 65    | 350           | 1500        | 0.160            | 1000       | AISC-1008-1R0J | 1.00         | $\pm$ 5  | 35    | 50            | 290         | 1.750            | 370        |
| AISC-1008-056J  | 0.056        | $\pm$ 5  | 65    | 350           | 1300        | 0.180            | 1000       | AISC-1008-1R2J | 1.20         | $\pm$ 5  | 35    | 50            | 250         | 2.000            | 310        |
| AISC-1008-062J  | 0.062        | $\pm$ 5  | 65    | 350           | 1300        | 0.200            | 1000       | AISC-1008-1R5J | 1.50         | $\pm$ 5  | 28    | 50            | 200         | 2.300            | 330        |
| AISC-1008-068J  | 0.068        | $\pm$ 5  | 65    | 350           | 1300        | 0.200            | 1000       | AISC-1008-1R8J | 1.80         | $\pm$ 5  | 28    | 50            | 160         | 2.600            | 300        |
| AISC-1008-075J  | 0.075        | $\pm$ 5  | 60    | 350           | 1200        | 0.200            | 1000       | AISC-1008-2R2J | 2.20         | $\pm$ 5  | 28    | 50            | 160         | 2.800            | 280        |
| AISC-1008-082J  | 0.082        | $\pm$ 5  | 60    | 350           | 1000        | 0.200            | 1000       | AISC-1008-2R7J | 2.70         | $\pm$ 5  | 22    | 25            | 140         | 3.200            | 290        |
| AISC-1008-R10J  | 0.01         | $\pm$ 5  | 60    | 350           | 1000        | 0.560            | 650        | AISC-1008-3R3J | 3.30         | $\pm$ 5  | 22    | 25            | 110         | 3.400            | 290        |
| AISC-1008-R12J  | 0.12         | $\pm$ 5  | 60    | 350           | 950         | 0.630            | 650        | AISC-1008-3R9J | 3.90         | $\pm$ 5  | 20    | 25            | 100         | 3.600            | 260        |
| AISC-1008-R15J  | 0.15         | $\pm$ 5  | 45    | 100           | 850         | 0.700            | 580        | AISC-1008-4R7K | 4.70         | $\pm$ 10 | 20    | 25            | 90          | 4.000            | 260        |
| AISC-1008-R18J  | 0.18         | $\pm$ 5  | 45    | 100           | 750         | 0.770            | 620        | AISC-1008-5R6K | 5.60         | $\pm$ 10 | 20    | 7.9           | 60          | 7.600            | 240        |
| AISC-1008-R20J  | 0.20         | $\pm$ 5  | 45    | 100           | 750         | 0.800            | 550        | AISC-1008-6R8K | 6.80         | $\pm$ 10 | 20    | 7.9           | 60          | 8.200            | 200        |

### TECHNICAL INFORMATION:

- Testing: (Equivalent acceptable)  
Inductance: HP4191A  
Q: HP4291A  
SRF: HP8553B  
RDC: measured @ 25°C
- Operating Temperature:  
Ceramic: -55°C to +125°C  
Ferrite: -55°C to +85°C
- Pad metalization:  
Ceramic: Tungsten-nickel with gold flash  
Ferrite: Silver-nickel with 90/10 solder  
Optional gold flash
- Solder methods: Wave, Reflow, Vapor Phase
- Solderability: Max 260°C for 10 seconds
- Marking: EIA color code

Note: 1. K=  $\pm$  10%, M=  $\pm$  20%, N=  $\pm$  30%

### PHYSICAL CHARACTERISTICS:

