

KARSON Material 52-200 Characteristic

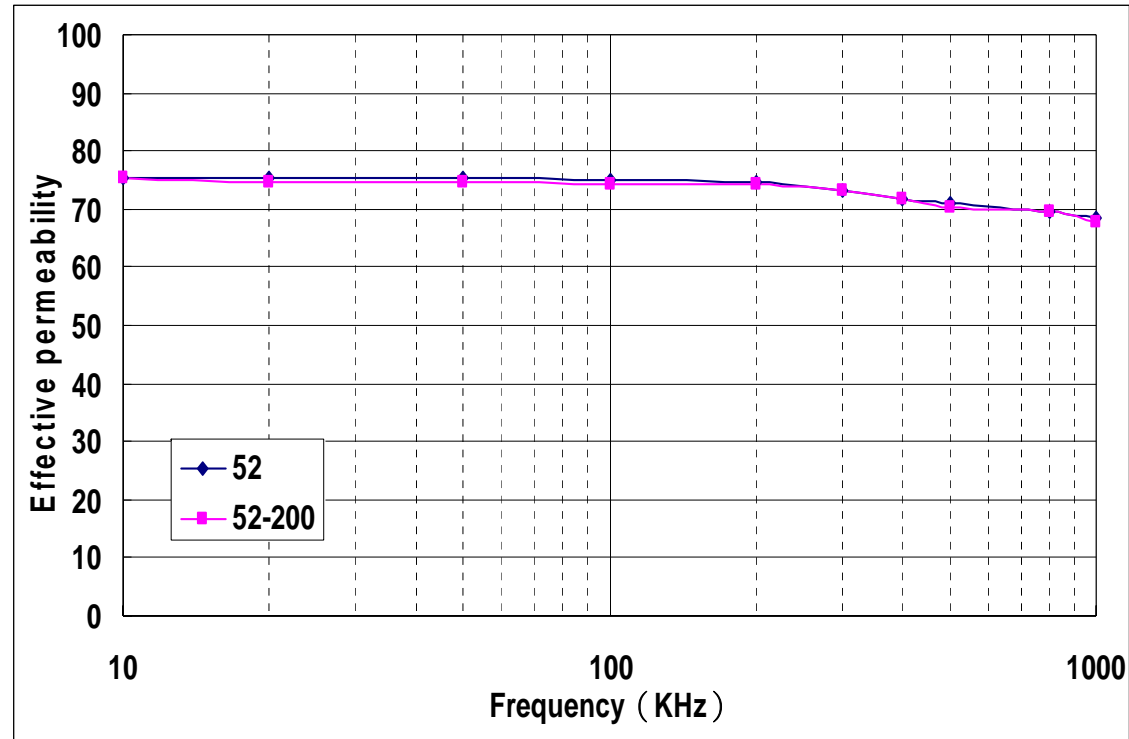
- **Effective Permeability VS Frequency**
- **Initial Permeability VS DC Magnetizing Force**
- **Initial Permeability VS Peak AC Flux Density**
- **Core Loss**
- **Initial Permeability VS Temperature**
- **Thermal Aging**
- **Use Temperature and Curie Temperature**



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◆ Effective Permeability VS Frequency



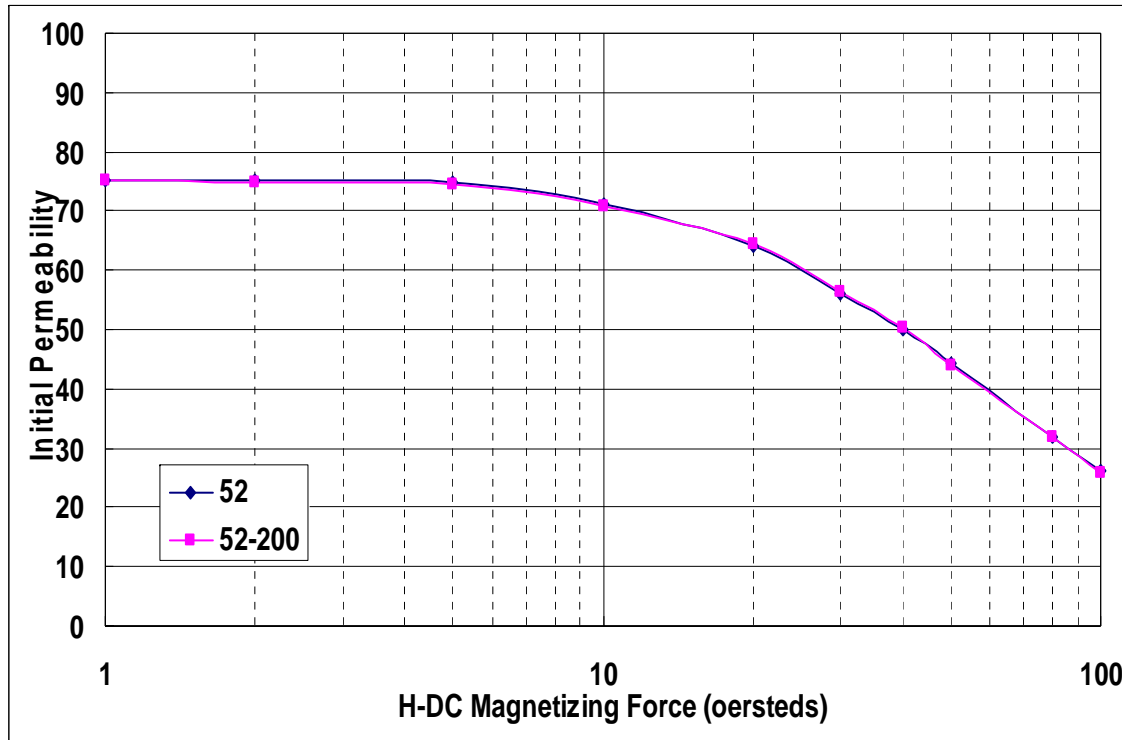
| Mix No \ F(KHz) | | F(KHz) | | | | | | | | | |
|-----------------|------------|--------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| | | 10 | 20 | 50 | 100 | 200 | 300 | 400 | 500 | 800 | 1000 |
| ui | 52 | 75.4 | 75.3 | 75.3 | 75.1 | 74.8 | 73.1 | 71.9 | 71.1 | 69.6 | 68.4 |
| | 52-200 | 75.2 | 74.8 | 74.5 | 74.4 | 74.2 | 73.1 | 71.7 | 70.3 | 69.4 | 67.6 |
| | Difference | -0.3% | -0.7% | -1.1% | -0.9% | -0.8% | 0.0% | -0.3% | -1.1% | -0.3% | -1.2% |



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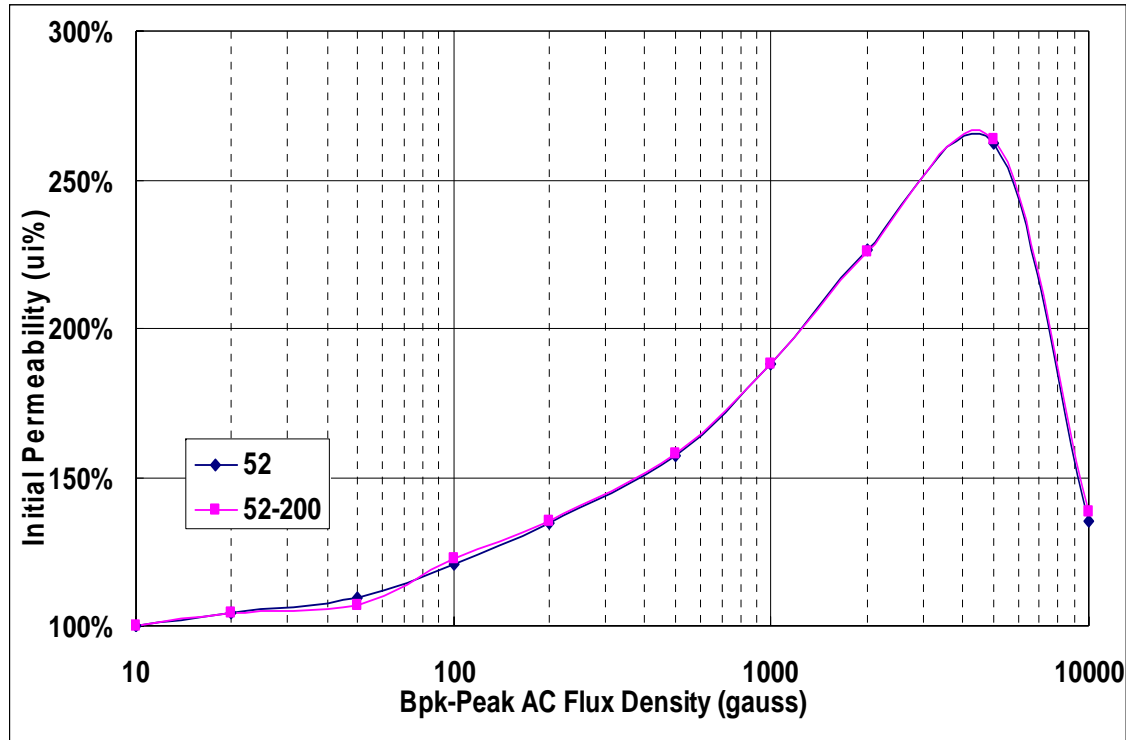
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◆ Initial Permeability VS DC Magnetizing Force



| H-DC Mix No | | 1 | 2 | 5 | 10 | 20 | 30 | 40 | 50 | 80 | 100 |
|----------------|------------|-------|-------|-------|-------|------|------|------|-------|------|-------|
| | | 52 | 75.3 | 75.3 | 74.9 | 71.2 | 64.2 | 56.2 | 50.1 | 44.3 | 31.8 |
| ui | 52-200 | 75.2 | 74.8 | 74.5 | 70.8 | 64.3 | 56.5 | 50.5 | 44.1 | 31.9 | 25.8 |
| | Difference | -0.1% | -0.7% | -0.5% | -0.6% | 0.2% | 0.5% | 0.8% | -0.5% | 0.3% | -1.5% |

◆ Initial Permeability VS Peak AC Flux Density



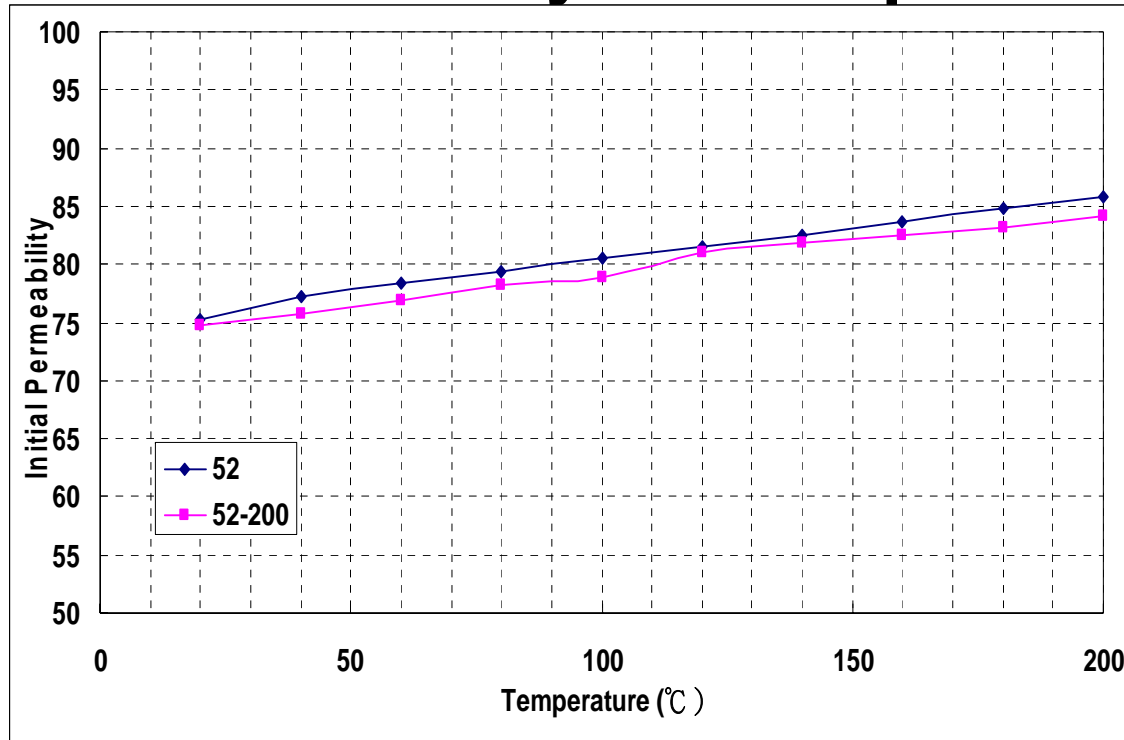
| H-DC Mix No | | 10 | 20 | 50 | 100 | 200 | 500 | 1000 | 2000 | 5000 | 10000 |
|----------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 52 | 100.3% | 104.7% | 109.3% | 120.5% | 134.3% | 157.2% | 188.3% | 226.3% | 262.5% |
| ui | 52-200 | 100.1% | 104.5% | 107.2% | 122.7% | 135.4% | 158.1% | 188.1% | 225.8% | 263.7% | 138.2% |
| | Difference | -0.2% | -0.2% | -1.9% | 1.8% | 0.8% | 0.6% | -0.1% | -0.2% | 0.5% | 2.1% |



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◆ Initial Permeability VS Temperature



| Mix No \ Temp(°C) | | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 |
|-------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 52 | 75.31 | 77.29 | 78.35 | 79.41 | 80.45 | 81.52 | 82.58 | 83.66 | 84.75 |
| ui | 52-200 | 74.79 | 75.78 | 76.97 | 78.19 | 78.95 | 80.95 | 81.85 | 82.51 | 83.15 | 84.13 |
| | Difference | -0.7% | -2.0% | -1.8% | -1.5% | -1.9% | -0.7% | -0.9% | -1.4% | -1.9% | -2.0% |



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◆ Thermal Aging

