

## SPECIFICATION FOR APPROVAL

### Material

|                            |                            |
|----------------------------|----------------------------|
| Production:                | Si-Fe Cores                |
| FUAN.P/N:                  | KSF400-090A                |
| AL:                        | 164(nH/N <sup>2</sup> )±8% |
| Material:                  | 90 μ                       |
| Coating Color:             | Blue                       |
| Coating material:          | epoxy                      |
| Coating Breakdown Voltage: | 1500V, 0.5mA, 2Sec         |



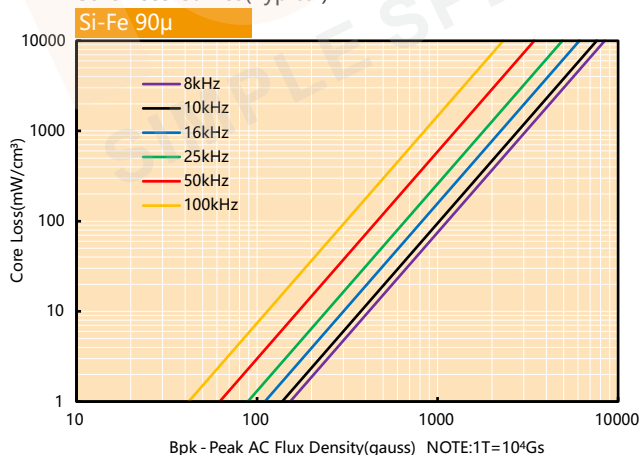
### Physical Characteristics

| Before Coating  |                |                | After Coating |             |             | Le(cm) | Ae(cm <sup>2</sup> ) | V(cm <sup>3</sup> ) | W(cm <sup>2</sup> ) | Weight (g) (ref.) | Box Quantity (Pieces) |
|-----------------|----------------|----------------|---------------|-------------|-------------|--------|----------------------|---------------------|---------------------|-------------------|-----------------------|
| OD(Max.) in/mm  | ID(Min.) in/mm | Ht(Max.) in/mm | OD(Max.) mm   | ID(Min.) mm | Ht(Max.) mm |        |                      |                     |                     |                   |                       |
| 4.000<br>101.60 | 2.250<br>57.15 | 0.650<br>16.51 | 103.12        | 55.75       | 17.78       | 24.271 | 3.523                | 85.495              | 24.398              | 640.3             | 25                    |

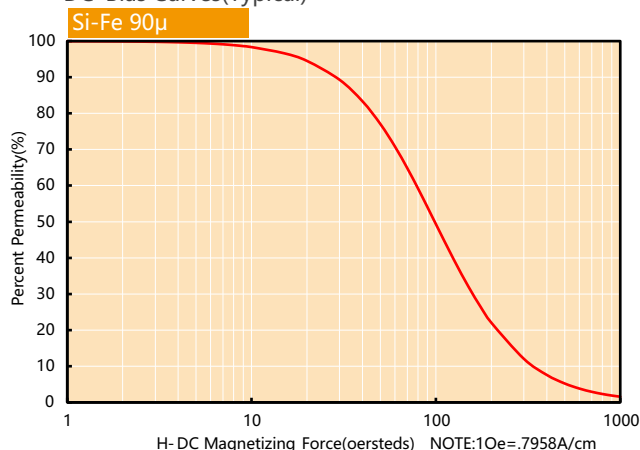
### Electrical Parameters(Typical)      Temperature(25°C±2°C)

| Test Item  | Test Condition  | Value(Typical)               | Test Instrument |
|------------|---|------------------------------|-----------------|
| Inductance | φ0.80mm/129Ts, 20kHz/1V, I=0A<br>(Evenly full windings)           | 2729μH±8%                    | CH3302          |
| DC-Bias    | φ0.80mm/129Ts, 20kHz/1V, I=15A(H=100Oe)<br>(Evenly full windings) | 1180μH(Min.)                 | WK3255B+WK3265B |
| Core Loss  | 50kHz/1000Gs  | 750mW/cm <sup>3</sup> (Max.) | SY-8219         |
| Remarks    | Set the internal resistance of LCR meter to 100Ω.                 |                              |                 |

Core Loss Curves(Typical)



DC-Bias Curves(Typical)



Si-Fe® Cores ( KSF Series) is made from 94% Fe and 6% Si. It is named XFlux by Magnetics and MegaFlux by CSC. It has a saturation flux density of 16000Gs and excellent DC-Bias characteristics. Its core loss is lower than Iron Powder Cores and have no problem of Thermal Aging. It is specially suitable for applying in, High Current Power Choke, Power inductor for energy storage, PFC Chockes and so on. It is also widely applied in solar, wind energy, hybrid powered vehicles. Permeability that we can produce now is 26ui-90ui, toroid and block shape.