

Ferrite for Switching Power Supplies

Toroidal Cores

TDK's toroidal cores are available in a number of sizes. Therefore, by selecting the ferrite material which corresponds to the application, it is possible to design stable transformers, inductors, etc. to cover a wide band range.

FEATURES

- Selection of core material to correspond to the application is possible as a result of standard ferrite materials with $\mu=5500$ to 10000.
- Epoxy and paraxylylene insulation coating is available.

APPLICATIONS

Choke coils, filters, current sensors, EMI/RFI filters, balun transformers.

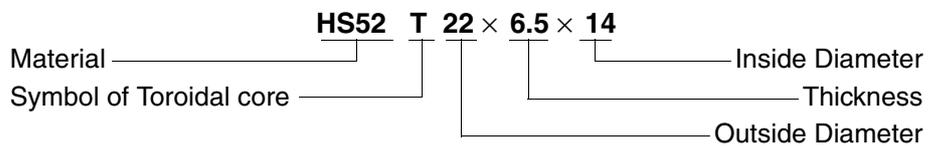
T14 to T44.5

Material: HS52, HS72, HS10

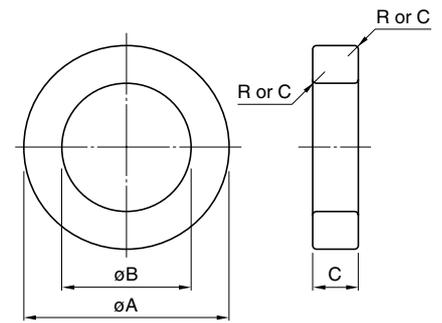


Ordering Code System

Cores



T CORES



| Part No. | JIS C 2569 | Dimensions in mm | | | Effective parameter | |
|-------------|--------------|------------------|----------|----------|-------------------------------|----------------------------|
| | | ϕA | ϕB | C | C_1 (mm^{-1}) | A_e (mm^2) |
| T14×7×8 | | 14.0±0.3 | 8.0±0.3 | 7.0±0.3 | 1.60 | 20.5 |
| T18×10×10 | FOR-18-10-10 | 18.0±0.3 | 10.0±0.3 | 10.0±0.3 | 1.07 | 38.9 |
| T16×8×12 | | 16.0±0.3 | 12.0±0.3 | 8.0±0.3 | 2.73 | 15.9 |
| T20×10×12 | FOR-20-10-12 | 20.0±0.4 | 12.0±0.4 | 10.0±0.3 | 1.23 | 39.1 |
| T22×6.5×14 | | 22.0±0.4 | 14.0±0.4 | 6.5±0.3 | 2.14 | 25.6 |
| T25×13×15 | | 25.0±0.4 | 15.0±0.4 | 13.0±0.3 | 0.946 | 63.6 |
| T28×13×16 | FOR-28-13-16 | 28.0±0.4 | 16.0±0.4 | 13.0±0.3 | 0.864 | 76.0 |
| T31×8×19 | | 31.0±0.5 | 19.0±0.5 | 8.0±0.3 | 1.60 | 47.1 |
| T38×14×22 | | 38.0±0.5 | 22.0±0.5 | 14.0±0.4 | 0.821 | 109 |
| T44.5×13×30 | FOR-45-13-30 | 44.5±0.5 | 30.0±0.5 | 13.0±0.4 | 1.23 | 93 |

| Part No. | Effective parameter | | | AL-value (nH/N^2) | | | Wt (g) |
|-------------|---------------------|----------------------------|--------|------------------------------|-----------|-----------|-----------|
| | ℓ_e (mm) | V_e (mm^3) | R or C | Material | | | |
| | | | | HS52* | HS72** | HS10*** | |
| T14×7×8 | 32.8 | 671 | C0.5 | 3800±25% | 5100±25% | 6800±30% | 3.4 |
| T18×10×10 | 41.5 | 1610 | C0.5 | 6400±25% | 8800±25% | 10150±30% | 8.3 |
| T16×8×12 | 43.4 | 689 | C0.3 | 2500±25% | 3400±25% | 4500±30% | 3.4 |
| T20×10×12 | 48.1 | 1880 | C0.5 | 5600±25% | 7600±25% | 10000±30% | 9.5 |
| T22×6.5×14 | 54.7 | 1400 | C0.5 | 3200±25% | 4400±25% | 5750±30% | 6.9 |
| T25×13×15 | 60.2 | 3830 | C1.0 | 7300±25% | 9900±25% | 13000±30% | 19 |
| T28×13×16 | 65.6 | 4990 | C0.5 | 8000±25% | 10700±25% | 14200±30% | 26 |
| T31×8×19 | 75.5 | 3550 | C1.0 | 4300±25% | 5800±25% | 7700±30% | 17 |
| T38×14×22 | 89.7 | 9800 | C1.0 | 8400±25% | 10700±25% | — | 50 |
| T44.5×13×30 | 114 | 10600 | C0.5 | 5600±25% | 7100±25% | — | 53 |

* AL-value: 100kHz, 100mV, 10Ts

** AL-value: 100kHz, 10mV, 5Ts

*** AL-value: 10kHz, 10mV, 10Ts

Can be coated with epoxy. If epoxy-coated products are desired, please suffix E to part No. when ordering.

Ex. HS52 T22 × 6.5 × 12E*

Outer diameter(ϕA)

10mm min.(T10): Epoxy coating

8mm max.(T8): Paraxylylene coating

* Dielectric breakdown voltage 1000Vd.c. min.