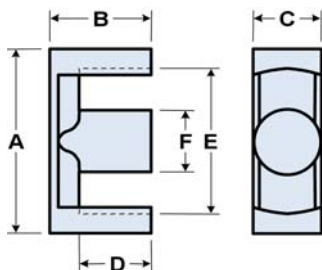


ETD29, ETD34, ETD39, ETD44, ETD49, ETD54, ETD59

ETD cores have been designed to make optimum use of a given volume of ferrite material for maximum throughput power, specifically for forward converter transformers. The structure, which includes a round center post, approaches a nearly uniform cross-sectional area throughout the core and provides a winding area that minimizes winding losses. ETD cores are used mainly in switched-mode power supplies and permit off-line designs where IEC and VDE isolation requirements must be met.



- ETD cores can be supplied with the center post gapped to a mechanical dimension or an A_L value.
- A_L value is measured at 1 kHz, $B < 10$ gauss
- Weight indicated is per pair or set.

Legend: Symbols & Definition

Dimensions (Top numbers are in millimeters, bottom numbers are in nominal inches.)

$\Sigma \ell / A$: Core Constant, ℓ_e : Effective Path Length, A_e : Effective Cross-Sectional Area, V_e : Effective Core Volume, A_L : Inductance Factor ($\frac{L}{N^2}$)

Explanation of part numbers: Digits 1 & 2 = product class, 3 & 4 = material grade.

Dimensions

| Row # | Part Number | Generic Size | A | B | C | D | E | F | Wt. (g) per Set |
|-------|--|------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|-----------------|
| (1) | 9578293202 9598293202 9595293202 | ETD29 | 29.80 ± 0.6 1.173 | 15.80 ± 0.2 0.622 | 9.50 ± 0.3 0.374 | 11.00 ± 0.2 0.433 | 22.00 min 0.866 min | 9.50 ± 0.3 0.374 | 28.00 |
| (2) | 9578343502 9598343502 9595343502 | ETD34 | 34.20 ± 0.65 1.346 | 17.30 ± 0.2 0.681 | 10.80 ± 0.3 0.425 | 12.10 ± 0.2 0.476 | 25.60 min 1.008 min | 10.80 ± 0.3 0.425 | 40.00 |
| (3) | 9578394002 9598394002 9595394002 | ETD39 | 39.10 ± 0.7 1.539 | 19.80 ± 0.2 0.780 | 12.70 ± 0.35 0.500 | 14.60 ± 0.2 0.575 | 29.30 min 1.154 min | 12.70 ± 0.35 0.500 | 60.00 |
| (4) | 9578444502 9598444502 9595444502 | ETD44 | 44.00 ± 0.75 1.732 | 22.30 ± 0.2 0.878 | 14.80 ± 0.35 0.583 | 16.50 ± 0.2 0.650 | 32.50 min 1.280 min | 14.80 ± 0.35 0.583 | 94.00 |
| (5) | 9578494902 9598494902 9595494902 | ETD49 | 49.00 ± 0.8 1.929 | 24.70 ± 0.2 0.972 | 16.30 ± 0.4 0.642 | 18.10 ± 0.2 0.713 | 36.10 min 1.421 min | 16.30 ± 0.4 0.642 | 124.00 |
| (6) | 9578545402 9598545402 9595545402 | ETD54 | 54.20 ± 1 2.134 | 27.10 ± 0.3 1.067 | 18.90 ± 0.4 0.744 | 19.50 ± 0.3 0.768 | 40.50 min 1.594 min | 18.90 ± 0.3 0.744 | 180.00 |
| (7) | 9578606002 9598606002 9595606002 | ETD59 (EER60) | 59.80 ± 1 2.354 | 30.00 ± 0.25 1.181 | 21.70 ± 0.4 0.854 | 22.55 ± 0.25 0.888 | 43.60 min 1.717 min | 21.70 ± 0.4 0.854 | 274.00 |

Quick Link: www.fair-rite.com/etd

Magnetic Core Parameters

Table Continued ...

| Row # | Part Number | $\sum lA(\text{cm}^{-1})$ | $l_e(\text{cm})$ | $A_e(\text{cm}^2)$ | $V_e(\text{cm}^3)$ | $A_{\min}(\text{cm}^2)$ | $A_L(\text{nH})$ |
|-------|--|---------------------------|------------------|--------------------|--------------------|-------------------------|-------------------------------------|
| (1) | 9578293202 9598293202 9595293202 | 9.50 | 7.07 | 0.767 | 5.418 | 0.709 | 2200 ±25% 2200 ±25% 2900 ±25% |
| (2) | 9578343502 9598343502 9595343502 | 8.20 | 7.90 | 0.972 | 7.68 | 0.916 | 2500 ±25% 2600 ±25% 3570 ±25% |
| (3) | 9578394002 9598394002 9595394002 | 7.20 | 9.24 | 1.28 | 11.85 | 1.267 | 3000 ±25% 3000 ±25% 3600 ±25% |
| (4) | 9578444502 9598444502 9595444502 | 6.00 | 10.35 | 1.73 | 17.94 | 1.717 | 3600 ±25% 3800 ±25% 5100 ±25% |
| (5) | 9578494902 9598494902 9595494902 | 5.30 | 11.44 | 2.135 | 24.42 | 2.09 | 4000 ±25% 4000 ±25% 5700 ±25% |
| (6) | 9578545402 9598545402 9595545402 | 4.70 | 12.56 | 2.65 | 33.30 | 2.40 | 5300 ±25% 5400 ±25% 6500 ±25% |
| (7) | 9578606002 9598606002 9595606002 | 3.90 | 13.87 | 3.57 | 49.52 | 3.23 | 6650 ±25% 6950 ±25% 8430 ±25% |