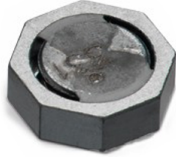


## TSDR Series

### SMD Shielded Tiny Power Inductor Size 1028



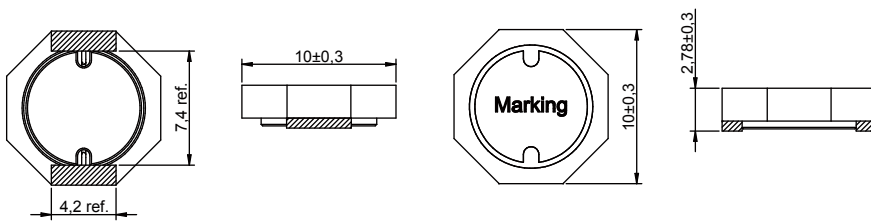
#### CHARACTERISTICS

- Low profile type
- Magnetically shielded
- Different sizes available
- Quantity: 1000pcs

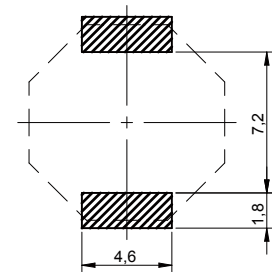
#### APPLICATION

- DC/DC converter
- LC filter

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

| Part No       | Inductance<br>( $\mu$ H) | Tolerance | Temperature Rise<br>Current<br>(A) | Saturation<br>Current<br>(A) | DCR<br>Typ.<br>(m $\Omega$ ) | DCR<br>Max.<br>(m $\Omega$ ) | Core<br>Material |
|---------------|--------------------------|-----------|------------------------------------|------------------------------|------------------------------|------------------------------|------------------|
| TSDR1028-1R0N | 1.0                      | ±30 %     | 8.0                                | 9.5                          | 4.9                          | 6.5                          | NiZn             |
| TSDR1028-1R5N | 1.5                      | ±30 %     | 7.2                                | 7.5                          | 7.3                          | 10                           |                  |
| TSDR1028-2R2N | 2.2                      | ±30 %     | 6.2                                | 5.9                          | 11                           | 15                           |                  |
| TSDR1028-3R3N | 3.3                      | ±30 %     | 5.3                                | 4.7                          | 15                           | 20                           |                  |
| TSDR1028-4R7N | 4.7                      | ±30 %     | 4.6                                | 4.2                          | 16.5                         | 23                           |                  |
| TSDR1028-6R8N | 6.8                      | ±30 %     | 4.2                                | 3.6                          | 25                           | 33                           |                  |
| TSDR1028-8R2N | 8.2                      | ±30 %     | 3.8                                | 2.8                          | 28.5                         | 37                           |                  |
| TSDR1028-100N | 10                       | ±30 %     | 3.0                                | 2.5                          | 40                           | 53                           |                  |
| TSDR1028-150N | 15                       | ±30 %     | 2.2                                | 2.25                         | 69                           | 90                           |                  |
| TSDR1028-220N | 22                       | ±30 %     | 1.8                                | 1.9                          | 104                          | 135                          |                  |
| TSDR1028-330N | 33                       | ±30 %     | 1.6                                | 1.3                          | 139                          | 180                          |                  |
| TSDR1028-470N | 47                       | ±30 %     | 1.4                                | 1.15                         | 167                          | 230                          |                  |
| TSDR1028-560N | 56                       | ±30 %     | 1.25                               | 1.1                          | 208                          | 270                          |                  |
| TSDR1028-680N | 68                       | ±30 %     | 1.2                                | 1.05                         | 232                          | 300                          |                  |
| TSDR1028-820N | 82                       | ±30 %     | 1.1                                | 1.0                          | 323                          | 420                          |                  |
| TSDR1028-101N | 100                      | ±30 %     | 1.0                                | 0.9                          | 365                          | 470                          |                  |

| Part No       | Inductance ( $\mu\text{H}$ ) | Tolerance  | Temperature Rise Current (A) | Saturation Current (A) | DCR Typ. (m $\Omega$ ) | DCR Max. (m $\Omega$ ) | Core Material |
|---------------|------------------------------|------------|------------------------------|------------------------|------------------------|------------------------|---------------|
| TSDR1028-121N | 120                          | $\pm 30\%$ | 0.9                          | 0.85                   | 428                    | 560                    | NiZn          |
| TSDR1028-151N | 150                          | $\pm 30\%$ | 0.85                         | 0.75                   | 530                    | 680                    |               |
| TSDR1028-221N | 220                          | $\pm 30\%$ | 0.5                          | 0.55                   | 750                    | 1000                   |               |

Operating Temperature: -40 °C up to +125 °C

Temperature rise current: The actual value of DC current when the temperature rise is  $\Delta T 30\text{ }^{\circ}\text{C}$

Saturation Current that will cause initial inductance to drop approximately 35%

## Typical Electrical Characteristics:

