

### Type 3635 Series

#### Key Features

- Available in 2 different packages
- Isat to 35A
- Irms to 38A
- Iron Core technology
- Low RDC
- Less than 6mm high
- Taped and Reeled

**PRODUCT  
PLANNED FOR  
EOL**

**LTB 18/08/2023**



The 3635 series utilises state of the art fine magnet wire construction giving super low resistance and very, very high current ratings. Aligned with Tyco Sigma, reliability, quality and attractive costs makes the 3635 series an attractive product for a wide range of industrial applications where current capability is a key factor.

#### Electrical Characteristics - 3635A Series

Inductance Code	Inductance L (µH)	Tolerance	Isat (A)	Irms (A)	R.D.C. (mΩ)	
					Max.	Typ.
R70	0.70	±25%	15.0	16.0	4.8	3.7
1R0	1.00	±25%	12.0	13.0	6.0	4.6
1R5	1.50	±25%	10.0	11.0	6.9	5.3
2R0	2.00	±25%	8.0	9.0	10.7	8.2
2R5	2.50	±25%	7.0	8.4	11.8	9.1
3R0	3.00	±25%	6.3	6.6	17.3	13.3
3R9	3.90	±25%	6.0	6.2	19.1	14.7
4R5	4.50	±25%	5.4	5.8	20.8	16.0

#### Environmental Characteristics - 3635A Series

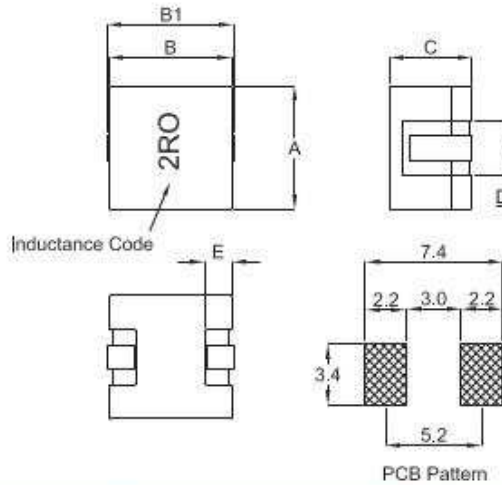
Storage Temp:	-55°C to +125°C
Operating Temp:	-55°C to +105°C (Temp. rise included)

#### Reliability Test - 3635A Series

Test Item	Specification	Test Condition
Thermal Shock Test: (Temp Cycle)	$\Delta L \leq 20\%$	Room Temp. → -25± 2°C 15 minutes → 30 minutes
		Room Temp. → 85± 2°C 15 minutes → 30 minutes
Humidity Resistance Test:	$\Delta L \leq 20\%$	Total: 50 cycles
		Temperature: 40± 2°C Humidity: 90 ~ 95% Applied Current: Per spec. Time: 500 hours
High Temp. Resistance Test:	$\Delta L \leq 20\%$	Temperature: 85± 2°C Applied Current: Per spec. Time: 500 hours

### Type 3635 Series

#### Dimensions 3635A Series



Series	A	B	B1	C	D	E
3635A	6.6±0.3	6.6±0.3	7.0±0.3	4.5±0.3	3.2 typ.	1.5 typ.

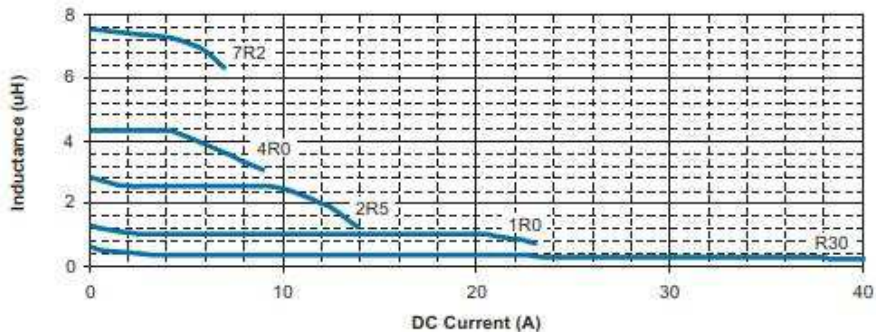
#### Electrical Characteristics - 3635B Series

Inductance Code	Initial Inductance L0 (μH)	Tolerance	Inductance at Flat Point L1 (μH) ±25	Flat Point Ref. (A)	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	DC Resistance (mΩ)	
							Max.	Typ.
R30	0.54	±25%	0.30	5.00	38.0	35.0	1.8	0.8
R60	0.85	±25%	0.60	5.00	28.0	27.0	2.5	1.5
1R0	1.25	±25%	1.00	5.00	23.0	22.0	3.4	2.8
1R8	2.00	±25%	1.80	2.00	20.0	16.0	3.4	2.5
2R5	2.70	±25%	2.50	2.00	18.0	12.0	3.4	2.5
3R3	3.50	±25%	3.30	2.00	16.0	11.8	5.4	4.3
4R0	4.20	±25%	4.00	2.00	15.0	8.3	5.4	4.3
5R6	5.80	±25%	5.60	2.00	12.0	8.0	11.4	9.2
7R2	7.40	±25%	7.20	2.00	10.0	7.5	13.5	10.5

#### Environmental Characteristics - 3635B Series

Storage Temp:	-40°C to +125°C
Operating Temp:	-40°C to +105°C
Rated Current:	Base on temp. rise & ΔL/L=20% typ.
Temp. Rise:	40°C max.

#### Inductance Vs DC Superposition Characteristics - 3635B Series

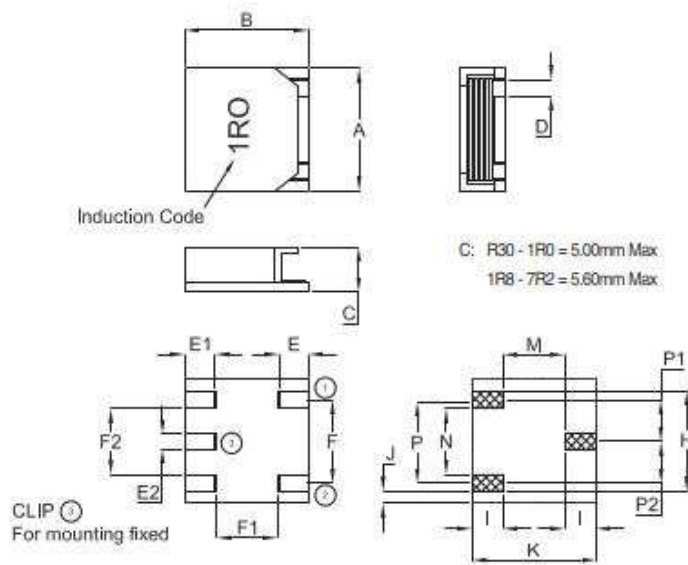


### Type 3635 Series

#### Reliability Test - 3635B Series

Test Item	Specification	Test Condition
Thermal Shock Test: (Temp Cycle)	$\Delta L \leq 20\%$	Room Temp. $\rightarrow$ $-25 \pm 2^\circ\text{C}$ 15 minutes $\rightarrow$ 30 minutes
		Room Temp. $\rightarrow$ $85 \pm 2^\circ\text{C}$ 15 minutes $\rightarrow$ 30 minutes
		Total: 50 cycles
Humidity Resistance Test:	$\Delta L \leq 20\%$	Temperature: $40 \pm 2^\circ\text{C}$ Humidity: 90 – 95% Applied Current: Per spec. Time: 500 hours
High Temp. Resistance Test:	$\Delta L \leq 20\%$	Temperature: $105 \pm 2^\circ\text{C}$ Applied Current: Per spec. Time: 500 hours

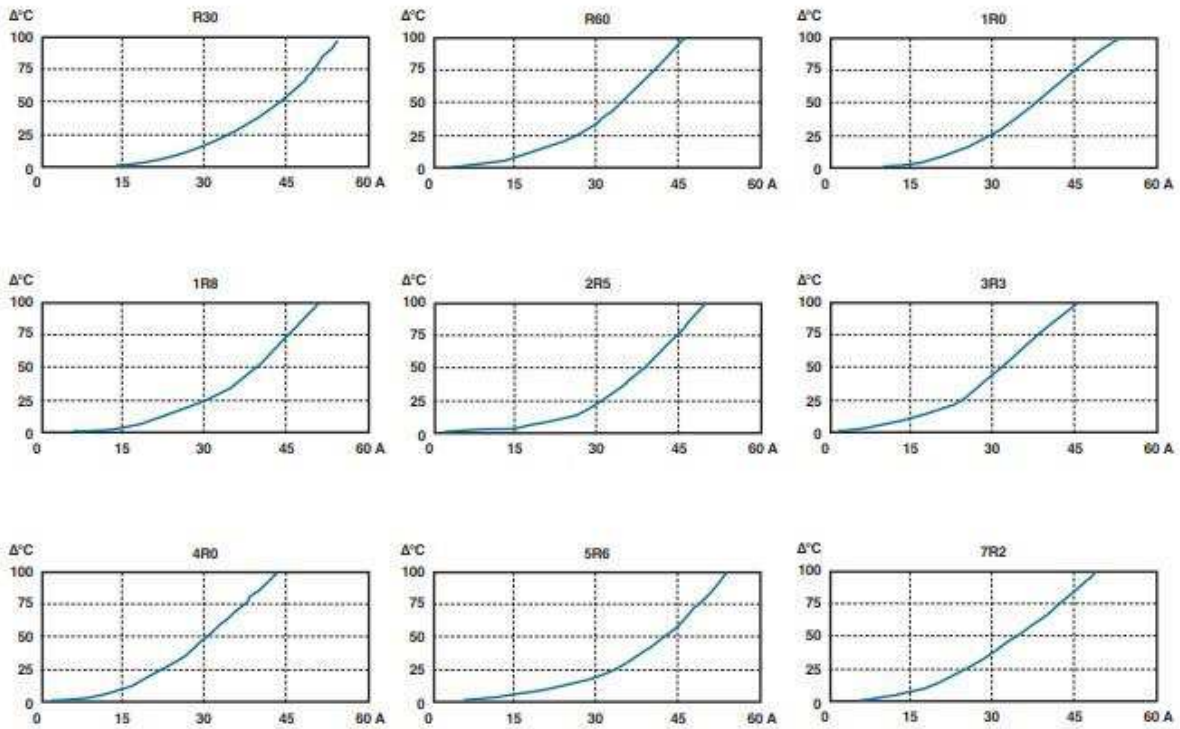
#### Dimensions 3635B Series



Series	A	B	D	E	E1	E2	F	F1	F2	H	I	J	K	M	N	P	P1	P2
3635B	12.5±30	12.5±30	1.9±20	2.5 nom.	2.0 ref.	2.0 ref.	7.5±0.25	6.4 ref.	5.2 ref.	10.5 ref.	4.15 ref.	3.0 ref.	13.0 ref.	4.7 ref.	4.5 ref.	7.5 ref.	3.75 ref.	3.75 ref.

**Type 3635 Series**

**@ DC Current Vs Temperature Rise - 3635B Series**



**How to Order**

3635	A	R30	P	T
Common Part	Style	Inductance	Tolerance	Package
3635 - Shielded Power Inductor	A - 6.6mm x 6.6mm x 4.5mm High B - 12mm x 12mm x 6mm High	See Relevant Table for Inductance Code	P - 25%	T - Taped and Reeled

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