

Sample Kit 2020

# SMT Power Inductors

B82477D4\*M900



## SMT Power Inductors – Dual Inductor 12.5 x 12.5 x 8.5 (mm)

$L_{ind} \pm 20\%$	$\mu\text{H}$	4.7	10	15	22	47
$I_R$	A	5.24	4.54	3.7	3.11	2.4
$I_{sat. typ}$	A	10	6.5	5.5	4.5	3.3
$R_{DC. typ}$	$\text{m}\Omega$	23.2	35.5	47.5	67	109
$K_{typ}$	%	97	99	99	99	99
Ordering code	B82477	D4472M900	D4103M900	D4153M900	D4223M900	D4473M900

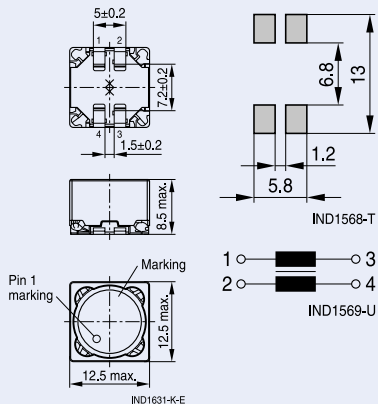
### Features

- Special winding technology for tight coupling of the two windings (coupling factor  $K = 97\%$  to  $99\%$ )
- Magnetically shielded
- Winding welded to terminals
- Base plate construction for high mechanical robustness
- Temperature range up to  $+150\text{ }^\circ\text{C}$
- Qualification to AEC-Q200

**Inductance is per winding.** When leads are connected in parallel, inductance is the same value. When leads are connected in series, inductance is four times the value.  $R_{DC}$  is for each winding. When leads are connected in parallel,  $R_{DC} = R_1 \times R_2 / R_1 + R_2$ . When leads are connected in series,  $R_{DC}$  is twice the value.  $I_{sat}$  is the current flowing through one winding. When leads are connected in parallel,  $I_{sat}$  is the same. When leads are connected in series,  $I_{sat}$  is half the value.  $I_R$  is the total current through both windings.  $I_1$  and  $I_2$  can be calculated like this:  $I_1^2 + I_2^2 = I_R^2$

### Applications

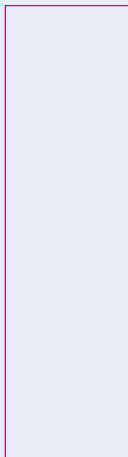
- DC/DC converter, especially for SEPIC topology
- Buck converter with auxiliary output
- Common mode choke
- 1:1 transformer



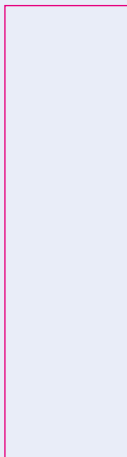
4.7  $\mu\text{H}$



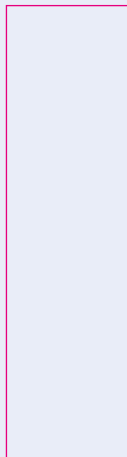
10.0  $\mu\text{H}$



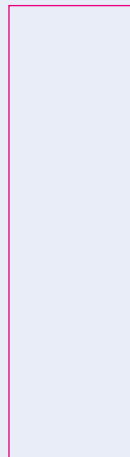
15.0  $\mu\text{H}$



22.0  $\mu\text{H}$



47.0  $\mu\text{H}$



**Important information:** It is incumbent on the customer to check and decide whether a product is suitable for use in a particular application. Our products are described in detail in our data sheets. Our *Important notes* and the product-specific *Cautions and warnings* must be observed. All relevant information is available through our sales offices.