

# **SX-03**

# **Current Sense Transformers**

# **Features**

- Small foot-print THT current sense transformer
- Frequency range from 30kHz to 500kHz
- Primary current rating up to 20 Amps
- Two primary wire for series or parallel configuration
- Operating temperature: -40°C to 125°C
- Primary to secondary isolation:  $1500 \, V_{RMS}$



| Ordering Code | Turns<br>ratio | Current<br>rating<br>(A) | Secondary<br>Rdc<br>(mΩ) MAX | Secondary<br>Inductance<br>(mH) MIN | Burden<br>Resistor<br>(Ω) |
|---------------|----------------|--------------------------|------------------------------|-------------------------------------|---------------------------|
| SX03-001      | 1:1:50         | 20                       | 550                          | 2.6                                 | 50                        |
| SX03-002      | 1:1:100        | 20                       | 1100                         | 10.6                                | 100                       |
| SX03-003      | 1:1:200        | 20                       | 2200                         | 42.6                                | 200                       |

#### **Notes**

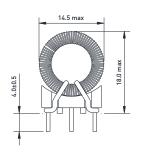
- Electrical specifications at 25°C
- Current rating (DC) based on 40°C temperature rise. Primary windings in 2-
- Operating temperature includes component self-heating
- Inductance measured at 10kHz, 10mVac.
  Recommended burden resistor for 20Amps. Primary windings in parallel

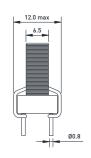
To calculate burden resistor use following formula:

$$Rb\left( \Omega \right) = \frac{Vout \cdot N}{Ipeak\_primary}$$

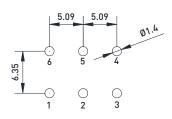
#### **Dimensions**

All dimensions in mm



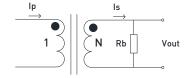


# **Recommended PCB layout**



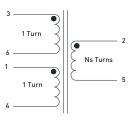
View in mounting direction

# **Application circuit**



Ip = Primary current Is = Secondary current Rb = Burden resistor Vout = Output voltage

# **Schematic**



Revised: 18/09/2013

Specifications subject to change without notice