

603 series

current sense transformers

PRODUCT DESCRIPTION

West Coast Magnetics' 603 series current sense transformers are an excellent choice for sensing current to 20 amps in a low profile SMD package. Designed for switching power supply applications, they will accommodate frequencies from 100 kHz to 1 MHz with excellent linearity. The product also provides 3000 Vac isolation between the current and sense windings for safety agency compliance.

FEATURES & BENEFITS

Sense current to 20 amps in a low profile SMD package – Tape and reel – 3000 Vac isolation – Excellent linearity

Notes:

1. Nominal 100% duty cycle current is approximately half peak value.
2. For fully optimal performance, operate in recommended areas only.

Within these ranges magnetizing current will be less than 1% of peak rated sense current and temperature rise will not exceed 40°C. Check with West Coast Magnetics for operation outside recommended areas.

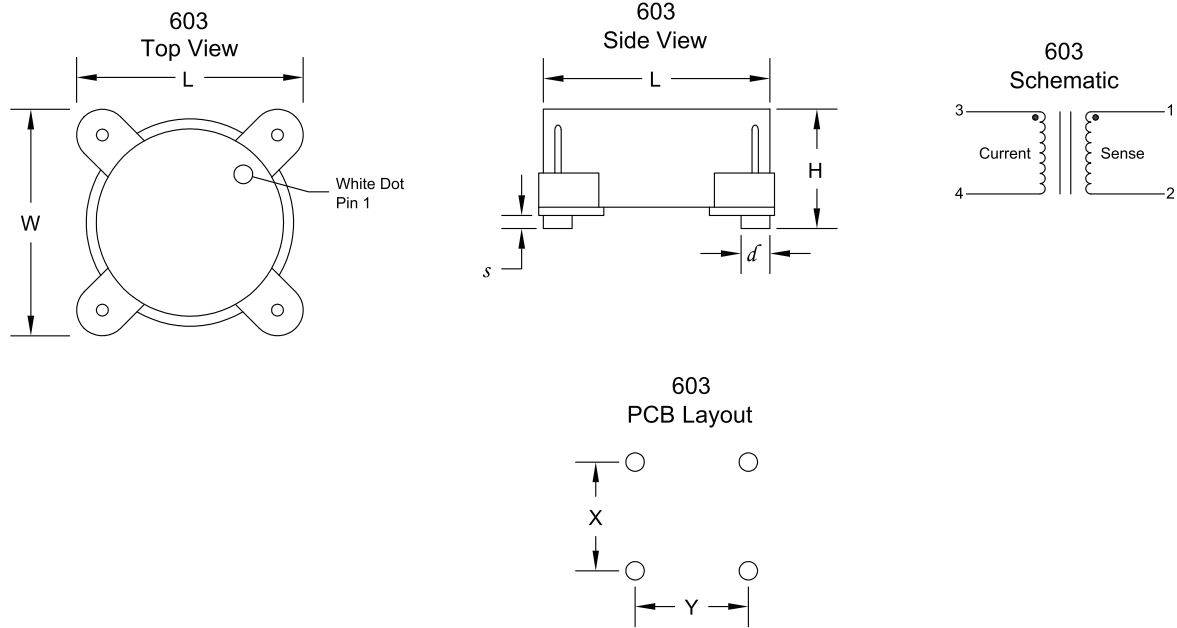
Product Code	Turns	Minimum Inductance (mH)	Nominal DCR (mΩ)	V out (Volts)	I in (amps)	Terminating Resistor (Ω)	Hypot (Vac)
603-1	10	78	15	1	1	10	3000
603-2	16	196	38	1	1	16	3000
603-3	25	480	93	1	1	25	3000
603-4	40	1224	235	1	1	40	3000
603-5	10	82	11	1	1	10	3000
603-6	16	210	27	1	1	16	3000
603-7	25	351	68	1	1	25	3000
603-8	40	1330	173	1	1	40	3000
603-9	10	124	14	1	1	10	3000
603-10	16	317	34	1	1	16	3000
603-11	25	832	84	1	1	25	3000
603-12	40	1982	215	1	1	40	3000

PEAK SENSE CURRENT (amps) vs FREQUENCY OF OPERATION

Product Code	100 kHz	200 kHz	400 kHz	600 kHz	1 MHz
603-1	–	–	10	9	6
603-2	–	10	10	10	10
603-3	–	10	10	10	10
603-4	10	10	10	10	–
603-5	–	–	–	–	9
603-6	–	–	15	15	15
603-7	15	15	15	15	–
603-8	15	15	15	15	–
603-9	–	–	–	15	12
603-10	–	20	20	20	20
603-11	20	20	20	20	–
603-12	20	20	20	20	NA



Dimensions: $\frac{\text{inches}}{\text{mm}}$



Product Code	L	W	H	s	d	X	Y
603-1							
603-2	<u>0.430</u>	<u>0.430</u>	<u>0.250</u>	<u>0.030</u>	<u>0.060</u>	<u>0.307</u>	<u>0.307</u>
603-3	10.9	10.9	6.4	0.8	1.5	7.8	7.8
603-4							
603-5							
603-6	<u>0.530</u>	<u>0.530</u>	<u>0.290</u>	<u>0.030</u>	<u>0.060</u>	<u>0.400</u>	<u>0.400</u>
603-7	13.5	13.5	7.4	0.8	1.5	10.2	10.2
603-8							
603-9							
603-10	<u>0.630</u>	<u>0.630</u>	<u>0.310</u>	<u>0.030</u>	<u>0.070</u>	<u>0.495</u>	<u>0.495</u>
603-11	16.0	16.0	7.9	0.8	1.8	12.6	12.6
603-12							

Note: All materials of construction minimum Class B 130° C rated.