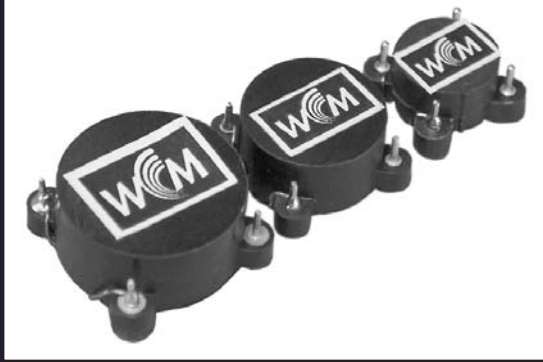


# CURRENT SENSE TRANSFORMERS

## WCM 603 Series



### 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

### DESIGN CONSTANTS

Part Number	Turns	Inductance mH(microhenries)	DCR (mΩ nom.sense)	V out (Volts)	I in (Amps)	Terminating Resistor (Ω)	Hypot Current to Sense
603-1	10	78	15	1	1	10	3000 Vac
603-2	16	196	38	1	1	16	3000 Vac
603-3	25	480	93	1	1	25	3000 Vac
603-4	40	1224	235	1	1	40	3000 Vac
603-5	10	82	11	1	1	10	3000 Vac
603-6	16	210	27	1	1	16	3000 Vac
603-7	25	351	68	1	1	25	3000 Vac
603-8	40	1330	173	1	1	40	3000 Vac
603-9	10	124	14	1	1	10	3000 Vac
603-10	16	317	34	1	1	16	3000 Vac
603-11	25	832	84	1	1	25	3000 Vac
603-12	40	1982	215	1	1	40	3000 Vac

### PEAK SENSE CURRENT VS FREQUENCY OF OPERATION (AMPS)

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

#### 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.

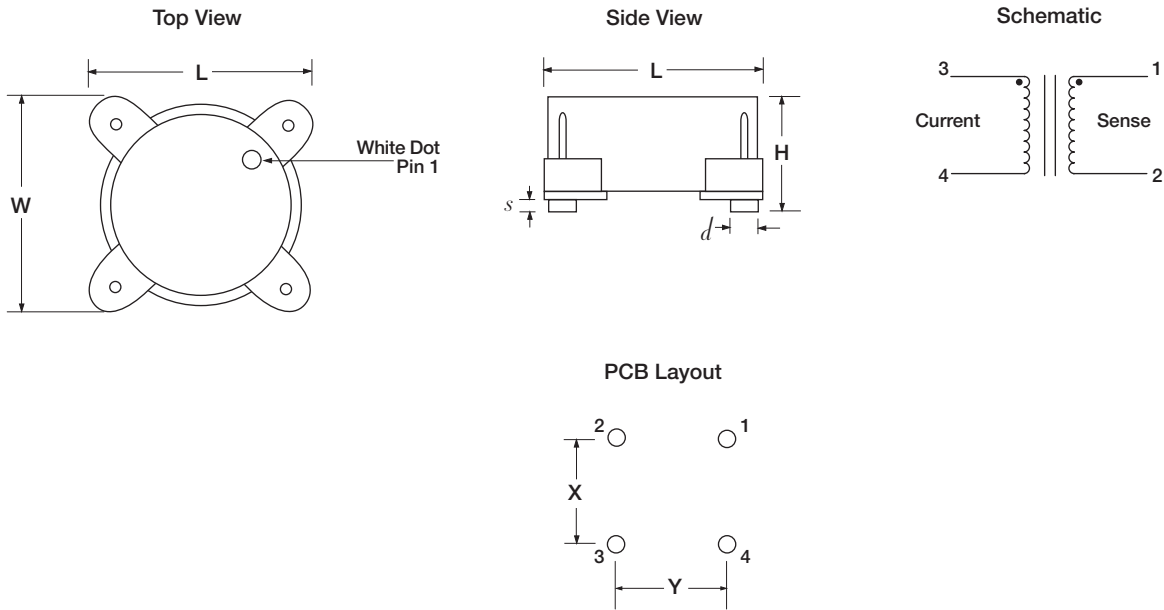
Check with West Coast Magnetics for operation outside recommended areas.



# CURRENT SENSE TRANSFORMERS

## WCM 603 Series

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



Size Code	L	W	H	s	d	X	Y
603-1							
603-2	$\frac{.430}{10.9}$	$\frac{.430}{10.9}$	$\frac{.250}{6.4}$	$\frac{.030}{0.8}$	$\frac{.060}{1.5}$	$\frac{.307}{7.8}$	$\frac{.307}{7.8}$
603-3							
603-4							
603-5							
603-6	$\frac{.530}{13.5}$	$\frac{.530}{13.5}$	$\frac{.290}{7.4}$	$\frac{.030}{0.8}$	$\frac{.060}{1.5}$	$\frac{.400}{10.2}$	$\frac{.400}{10.2}$
603-7							
603-8							
603-9							
603-10	$\frac{.630}{16.0}$	$\frac{.630}{16.0}$	$\frac{.310}{7.9}$	$\frac{.030}{0.8}$	$\frac{.070}{1.8}$	$\frac{.495}{12.6}$	$\frac{.495}{12.6}$
603-11							
603-12							

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

