

# CURRENT SENSE TRANSFORMERS

## WCM 601 Series



### PRODUCT DESCRIPTION

West Coast Magnetics' 601 series current sense transformers are designed to accurately sense current at frequencies from 100 kHz to 600 kHz. They feature excellent linearity up to rated peak current. Compact size is optimized to minimize board space in two packaging configurations...through hole horizontal and through hole vertical mount.

### FEATURES - BENEFITS



Sense Current to 20 Amps • 100 kHz to 600 kHz operating frequency • Design assistance from West Coast Magnetics

### DESIGN CONSTANTS

Size Code	Turns	Inductance min. (millihenries)	DCR ( $\Omega$ )	V out (Volts)	I in (Amps)	Terminating Resistor ( $\Omega$ )	Hypot
601-1	25	0.57	0.07	1	1	25	3000 VAC
601-2	50	2.30	0.18	1	1	50	3000 VAC
601-3	100	9.10	0.57	1	1	100	3000 VAC
601-4	200	36.00	1.80	1	1	200	3000 VAC
601-5	25	0.83	0.18	1	1	25	3000 VAC
601-6	50	3.30	0.41	1	1	50	3000 VAC
601-7	100	13.20	1.31	1	1	100	3000 VAC
601-8	200	52.80	4.15	1	1	200	3000 VAC

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

Size Code	50 kHz	100 kHz	200 kHz	400 kHz	600 kHz
601-1	—	—	30	30	30
601-2	—	30	30	30	—
601-3	30	30	—	—	—
601-4	30	—	—	—	—
601-5	—	—	30	30	30
601-6	—	30	30	30	—
601-7	30	30	—	—	—
601-8	30	—	—	—	—

#### Notes:

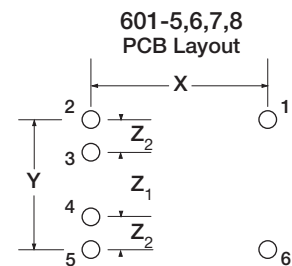
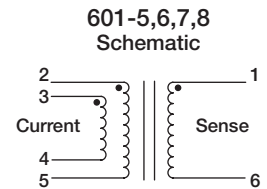
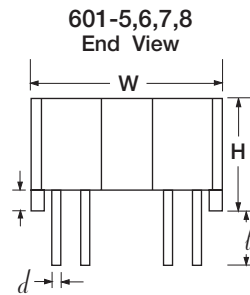
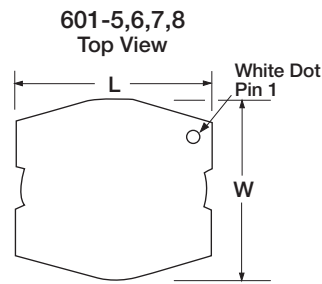
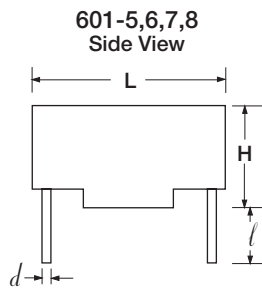
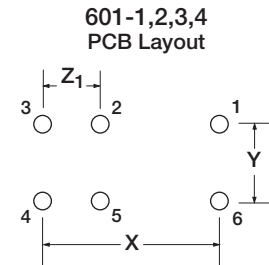
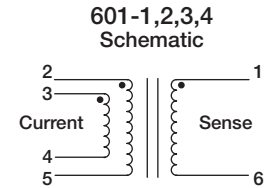
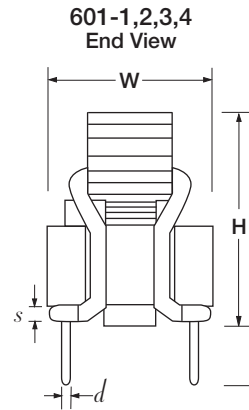
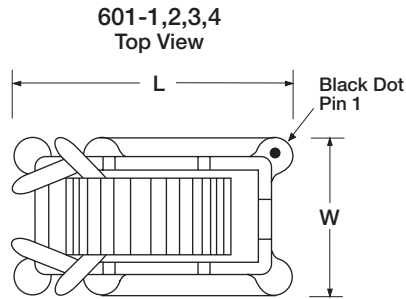
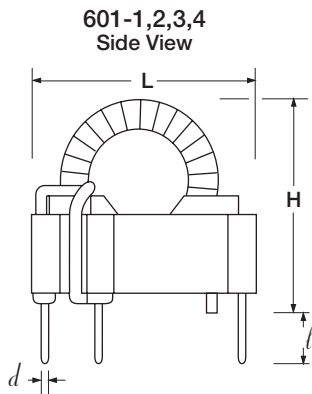
1. For reliable performance at peak rated sense current, the sense windings must be connected in parallel to split the load.
2. For fully optimal performance, operate in recommended areas only. Within these ranges magnetizing current will be less than 1% of peak rated sense current and temperature rise will not exceed 40°C. Check with West Coast Magnetics for operation outside recommended areas.



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## WCM 601 Series

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



Size Code	L	W	H	s	l	d*	X	Y	Z <sub>1</sub>	Z <sub>2</sub>
601-1	.800	.450	.750	.080	.175	.025	.700	.350	.200	NA
601-2	.800	.450	.750	.080	.175	.025	.700	.350	.200	NA
601-3	20.3	11.4	19.1	2.0	4.4	.06	17.8	8.9	5.1	NA
601-4	20.3	11.4	19.1	2.0	4.4	.06	17.8	8.9	5.1	NA
601-5	.680	.630	.360	.060	.191	.031	.600	.200	.200	.100
601-6	.680	.630	.360	.060	.191	.031	.600	.200	.200	.100
601-7	17.3	16.0	9.1	1.5	4.9	.79	15.2	10.2	5.1	2.5
601-8	17.3	16.0	9.1	1.5	4.9	.79	15.2	10.2	5.1	2.5

Note: \* 601-1, 601-2, 601-3, 601-4 — .025" square pin  
\* 601-5, 601-6, 601-7, 601-8 — .031" round pin

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