

CURRENT SENSE TRANSFORMERS

WCM 602 Series



PRODUCT DESCRIPTION

West Coast Magnetics' 602 series current sense transformers can accurately sense up to 45 Amps peak current. They feature excellent linearity in the frequency range of 125 kHz to 400 kHz. The 602 series current sense transformers are available in either a vertical or horizontal mount style and are designed to comply with safety agency requirements including UL, CSA, VDE and IEC standards.

FEATURES - BENEFITS



Sense Current to 45 Amps • 25 kHz to 400 kHz operating frequency • Design assistance from West Coast Magnetics

DESIGN CONSTANTS

Size Code	Turns	Inductance min. (millihenries)	DCR (mΩnom)	V out (Volts)	I in (Amps)	Terminating Resistor (Ω)	Hypot
602-1	25	0.7	95	1	1	25	3750 VAC
602-2	50	2.7	260	1	1	50	3750 VAC
602-3	100	11.1	1000	1	1	100	3750 VAC
602-4	200	44.0	3300	1	1	200	3750 VAC
602-5	25	0.7	95	1	1	25	3750 VAC
602-6	50	2.7	260	1	1	50	3750 VAC
602-7	100	11.1	1000	1	1	100	3750 VAC
602-8	200	44.0	3300	1	1	200	3750 VAC

PEAK SENSE CURRENT VS FREQUENCY OF OPERATION (AMPS)

Size Code	25 kHz	50 kHz	100 kHz	200 kHz	400 kHz
602-1	—	—	—	45	45
602-2	—	45	45	45	—
602-3	45	45	45	—	—
602-4	45	—	—	—	—
602-5	—	—	—	45	45
602-6	—	45	45	45	—
602-7	45	45	45	—	—
602-8	45	—	—	—	—

Note: 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.

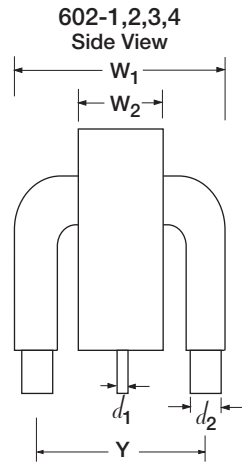
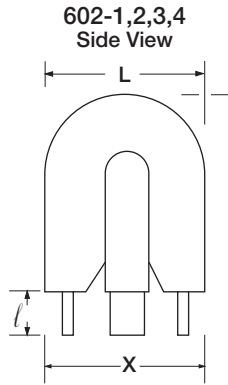
Check with West Coast Magnetics for operation outside recommended areas.



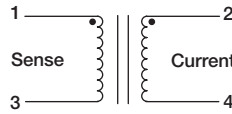
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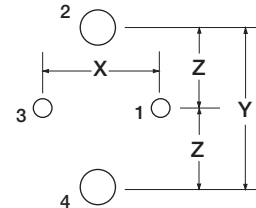
Dimensions: $\frac{\text{Inches}}{\text{mm}}$



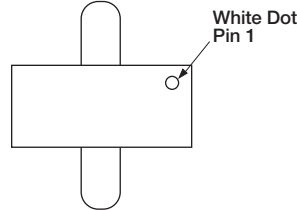
602-1,2,3,4 Schematic



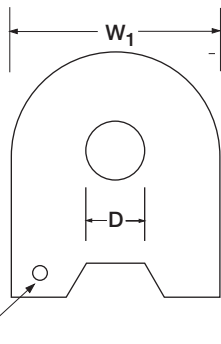
602-1,2,3,4 PCB Layout



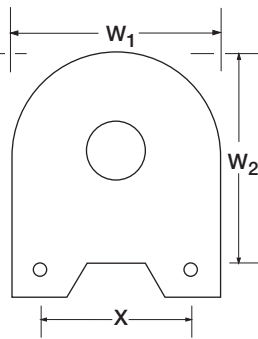
602-1,2,3,4 Top View



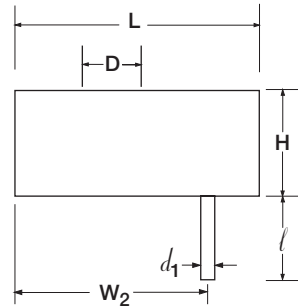
602-5,6,7,8 Top View



602-5,6,7,8 Bottom View



602-5,6,7,8 Side View



Note: 602 - 5, 6, 7, 8 require single turn sense wire.

Size Code	L	W ₁	W ₂	H	D	X	Y	Z	l	d ₁	d ₂
602-1	.675	.800	.400	.800	NA	.500	.700	.350	.200	.031	.125
602-2	17.1	20.3	10.2	20.3	NA	12.7	17.8	8.9	5.1	.79	3.2
602-3											
602-4											
602-5	.787	.661	.628	.410	.197	.492	NA	NA	.375	.031	NA
602-6	20.0	16.8	16.0	10.4	5.00	12.5	NA	NA	9.5	.79	NA
602-7											
602-8											

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

