

# SWITCH MODE TRANSFORMERS

## WCM 405 Series



### PRODUCT DESCRIPTION

West Coast Magnetics' 405 series transformers have been designed specifically for switch mode power applications. The isolation characteristics of this transformer geometry make it an ideal choice for medical applications where safety agency requirements must be met. This transformer series also features high power handling capability in a compact package.

### FEATURES • BENEFITS



• RoHS compliant on request

Medical grade isolation • UL/CSA/VDE design available • High power and compact size

### DESIGN CONSTANTS

Size Code	Ae (cm <sup>2</sup> )	le (cm)	Ve (cm <sup>3</sup> )	Wa (cm <sup>2</sup> )	WaAc (mm <sup>4</sup> )	Window Width (cm)	Window Width (in)	Window Height (cm)	Window Height (in)	Mean Length per Turn (ft)	Rth (deg C/Watt)
405-2016	0.62	3.74	2.31	0.26	1587	0.798	0.314	0.318	0.125	0.144	34
405-2020	0.62	4.54	2.79	0.38	2381	1.194	0.470	0.318	0.125	0.144	31
405-2620	1.19	4.63	5.49	0.33	3951	0.899	0.354	0.370	0.146	0.184	21
405-2625	1.18	5.55	6.53	0.50	5924	1.359	0.535	0.370	0.146	0.184	20
405-3220	1.70	5.55	9.42	0.47	7990	0.879	0.346	0.535	0.211	0.220	16
405-3230	1.61	7.46	11.97	0.99	16003	1.859	0.732	0.535	0.211	0.220	14
405-3535	1.96	8.79	17.26	1.59	31164	2.230	0.878	0.715	0.282	0.247	12
405-4040	2.01	10.19	20.45	2.49	50049	4.966	1.955	0.930	0.366	0.275	11

### OUTPUT POWER VS. FREQUENCY OF OPERATION

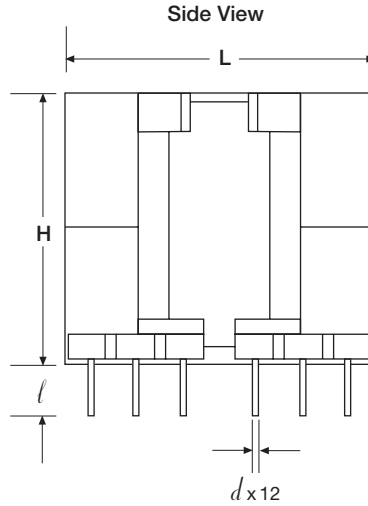
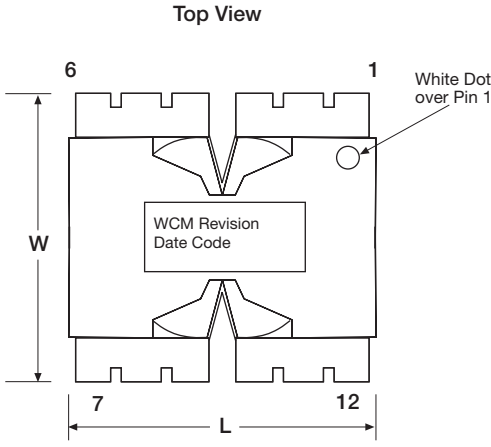
Size Code	25kHz	50kHz	100kHz	250kHz	500kHz
405-2016	23	29	36	56	63
405-2020	30	40	54	83	95
405-2620	44	58	79	121	139
405-2625	60	80	107	152	181
405-3220	81	108	144	205	244
405-3230	168	223	296	419	503
405-3535	298	396	527	745	893
405-4040	400	532	710	996	1190



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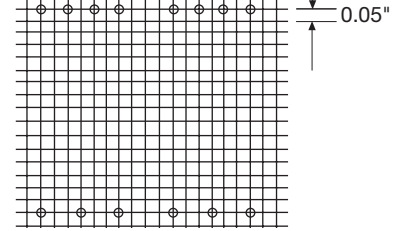
## WCM 405 Series

405-2620,-2625,-3220,-3230,-3535,-4040

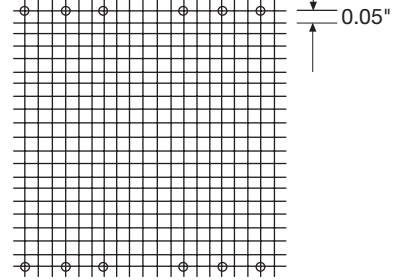


### PCB Layouts

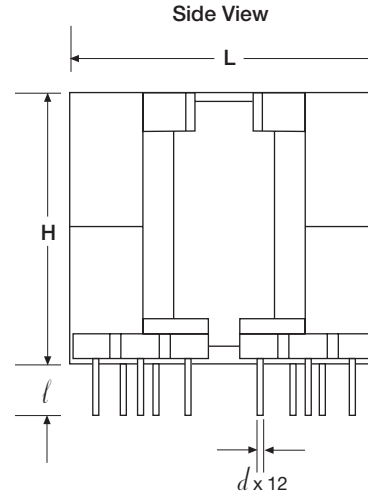
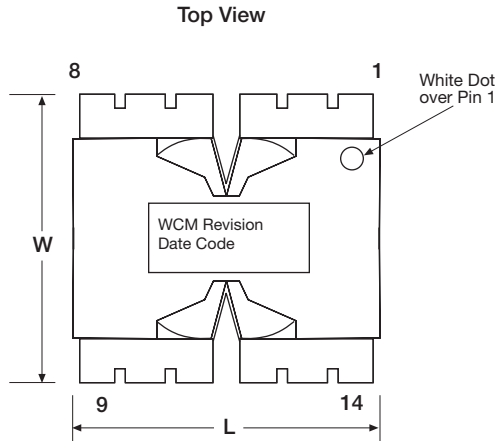
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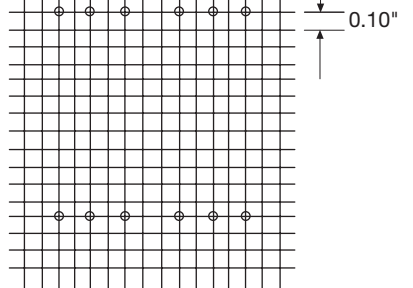
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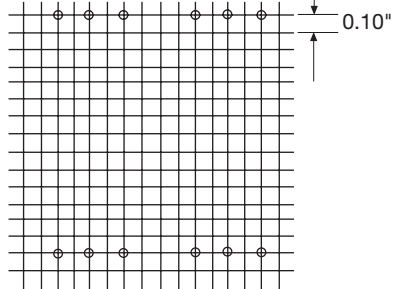
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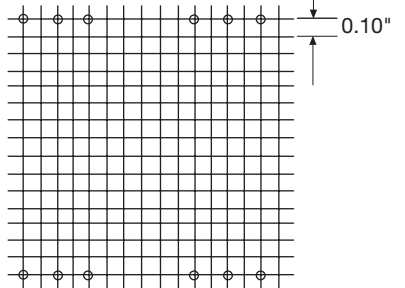
405-3220,-3230



405-3535



405-4040



### GEOMETRY

Size Code	L		W		H		$l$	$d$
	inches	mm	inches	mm	inches	mm		
405-2016	0.92	23.2	0.92	23.2	0.70	17.8	7.0	0.60
405-2020	0.92	23.2	0.92	23.2	0.85	21.6	7.0	0.60
405-2620	1.10	27.9	1.17	29.7	0.91	23.1	7.0	0.85
405-2625	1.10	27.9	1.17	29.7	1.02	25.9	7.0	0.95
405-3220	1.34	34.0	1.35	34.3	0.95	24.1	7.0	0.95
405-3230	1.34	34.0	1.35	34.3	1.34	34.0	7.0	0.95
405-3535	1.47	37.3	1.55	39.4	1.52	38.6	7.0	0.95
405-4040	1.70	43.2	1.68	42.7	1.73	43.9	7.0	0.95

Note: 1) Tolerance on pin lengths is  $\pm 0.7$  mm

2) Tolerance on pin diameter is  $\pm 0.06$  mm

