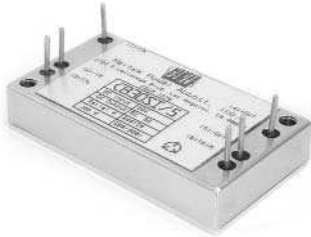




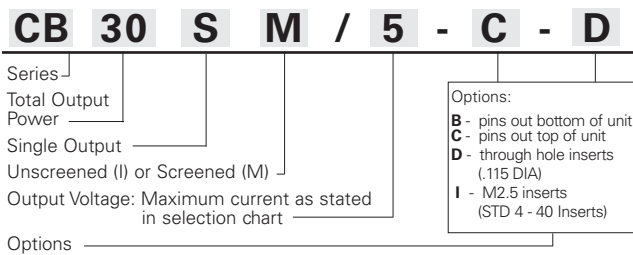
# CB30S

30 Watts Output Power

SINGLE OUTPUT



## How to Order

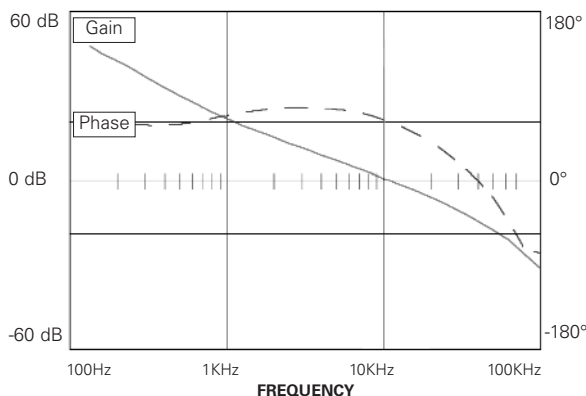


## INPUT CHARACTERISTICS

	Min.	Typ.	Max.	Units
Input Voltage	16	28	40	Vdc
Brown Out (75% of Full Load) [fig. I]*			13.5	Vdc
No Load Power Dissipation		1.0		W
Logic Disable Current (Sink)			150	µA
Logic Disable Voltage (TTL)	0		0.8	Vdc
Logic Disable Power In		300		mw
Efficiency up to: See Page 28 [fig. II, III]*				
>=5 Vdc Output (FL)		87		%
<5 Vdc Output (FL)		81		%

EMI: Units conform to MIL-STD-461D with companion filter module (CBF30)  
 Input Transient: Units can withstand 50V transients for up to 100 ms per MIL-STD-704E

## STABILITY



## FEATURES

- .38 Inch Profile
- Remote Turn On (TTL)
- Output Overvoltage Protection
- Output Overcurrent Protection
- Over Temperature Protection
- Output Voltage Trim
- 100% Environmental Screening (M Models)

## SELECTION CHART

Nominal Output Voltage (Volts)	Output Current (Amps)	Model Number (Unscreened)	Model Number (Screened)
2	6.0	CB30SI/2-C	CB30SM/2-C
3.3	6.0	CB30SI/3.3-C	CB30SM/3.3-C
5	6.0	CB30SI/5-C	CB30SM/5-C
5.2	5.8	CB30SI/5.2-C	CB30SM/5.2-C
12	2.5	CB30SI/12-C	CB30SM/12-C
15	2.0	CB30SI/15-C	CB30SM/15-C
24	1.3	CB30SI/24-C	CB30SM/24-C
28	1.1	CB30SI/28-C	CB30SM/28-C

## OUTPUT CHARACTERISTICS

	Min.	Typ.	Max.	Units
Set Point Accuracy		25	50 <sup>1</sup>	mV
Load Regulation		10	20 <sup>2</sup>	mV
Line Regulation		10	20 <sup>3</sup>	mV
Ripple P - P (10 MHz) [fig. IV]*		50	100 <sup>4</sup>	mV
Overvoltage Protection		125		% V <sub>out</sub>
Transient Response (V <sub>out</sub> 1%) Time/Overshoot [fig. V & VI]*				
20 - 80% Load (@ Nom. Line)		250/250	500/500	µS/mV
Low Line - High Line		250/250	500/500	µS/mV
50 - 100% Load (@ Nom. Line)		250/250	500/500	µS/mV
Temperature Drift		0.01	0.05	%/°C
Current Limit	105		150	% I <sub>out</sub>
Short Circuit Current	25	50	75	% I <sub>out</sub>
Trim Range	90		110	% V <sub>out</sub>
Turn On Time [fig. XII]*		5		mS
Logic Turn On Time [fig. IX]*		2.5		mS

<sup>1</sup> 1% or 50mV, whichever is greater

<sup>2</sup> or 0.2% maximum, whichever is greater from no load to full load

<sup>3</sup> or 0.2% maximum, whichever is greater from low line to high line

<sup>4</sup> or 1% maximum, whichever is greater

\* see figures on page 28



**HIGH DENSITY  
DC TO DC CONVERTERS**

**TEMPERATURE CHARACTERISTICS**

	Min.	Typ.	Max.	Units
Operating (Case)	-55		+100	°C
Storage (Ambient)	-55		+125	°C
Thermal Resistance Case (Ambient)		13		°C/W

**ENVIRONMENTAL SCREENING - M MODEL**

Stabilization Bake:	+125°C for 24 hours similar to MIL-STD-883, M1008.2, Condition B
Temperature Cycling:	10 cycles at -55°C to +125°C (transition 5°C/min.) similar to MIL-STD-883, M1010, Condition B
Burn in:	160 hours @ 85°C minimum with $V_{in}=28V_{dc}$ and output at full load
Final Testing	

**ENVIRONMENTAL SCREENING - I MODEL**

Burn in:	16 hours @ 85°C minimum with $V_{in}=28V_{dc}$ and output at full load
Final Testing	
See "Guide to Operation" for full details	

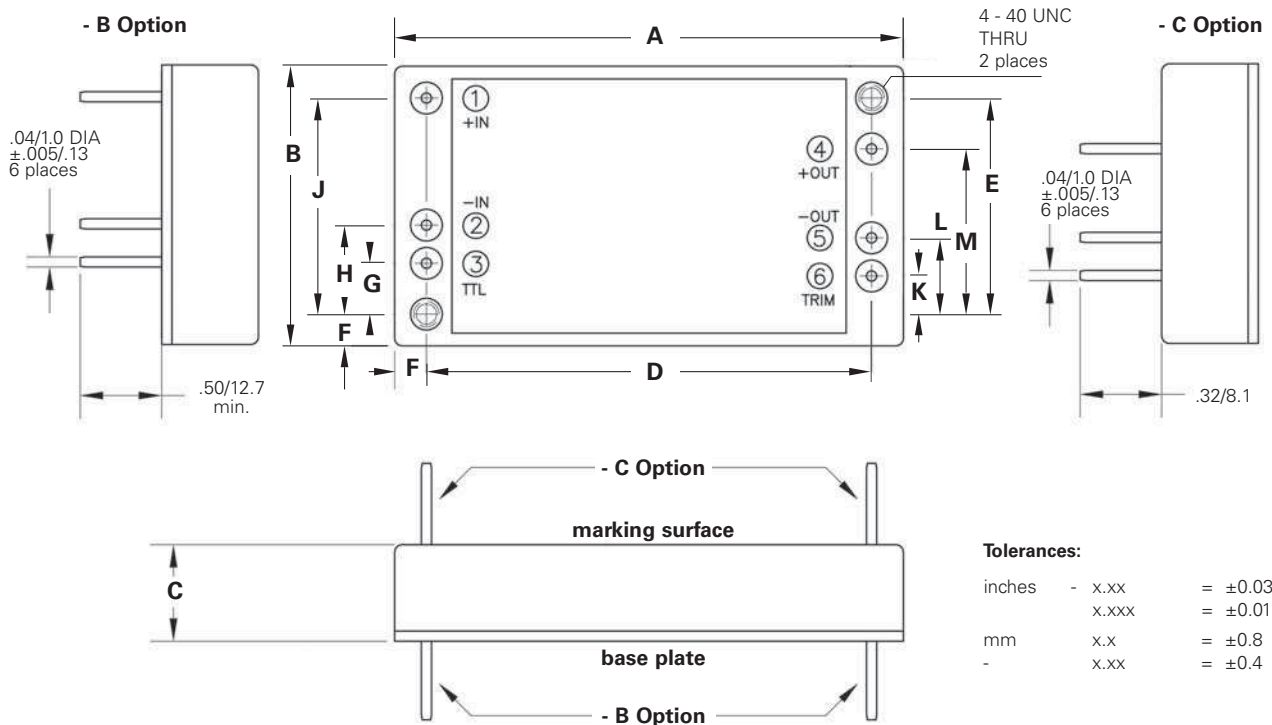
**ISOLATION CHARACTERISTICS**

	Min.	Units
Isolation:		
Input to Output	500	Vdc
Output to Base	250	Vdc
Input to Base	250	Vdc
Insulation Resistance (@50 Vdc)	50	MOhm

**MECHANICAL CHARACTERISTICS**

Weight	1.59 45	oz. maximum grams maximum
Size	1.1 x 2.0 x 0.38 27.9 x 50.8 x 9.7	inch mm
Volume	0.84 13.75	inch <sup>3</sup> cm <sup>3</sup>
Material	Pin Base Case	Brass (Solder Plating) Aluminum 5052-H32 28 GA CRS (Nickel Plating)
Mounting	Standard I Option D Option	4-40 inserts in baseplate M2.5 metric inserts in baseplate 0.115 DIA thru holes in baseplate

**CASE DRAWINGS**



**Tolerances:**

inches	-	x.xx	= ±0.03
		x.xxx	= ±0.015
mm		x.x	= ±0.8
		x.xx	= ±0.4

**Inches/Millimeters**

A	B	C	D	E	F	G	H	J	K	L	M
2.00	1.10	.38	1.750	.850	.13	.200	.350	.850	.150	.300	.650
50.8	27.9	9.7	44.45	21.59	3.3	5.08	8.89	21.59	3.81	7.62	16.51



# PERFORMANCE CHARACTERISTICS: CB30S

