

Features

- 1U Solder In Design
- DAC Controlled Voltage Margining
- Power Good Output
- Differential Remote Sense
- Remote Enable
- Tri-State on Disable
- Supervisory Function
 - Output Overcurrent
 - Short Circuit Protection
 - Fused Input
 - Open Control Loop Protection

**NOT RECOMMENDED
FOR NEW DESIGNS**



Table 1:

Input Characteristics	Notes and Conditions (1)	Min	Typ	Max	Units
Input Voltage Operating Range	Io = 0 to 60 Amps	11.0	12.0	12.60	Vdc
Input Undervoltage Lockout	Turn-on Threshold	8.77	9.43	10.22	Vdc
	Turn-off Threshold	7.87	8.57	9.30	Vdc
	Hysteresis Voltage	0.80	0.86	0.95	Vdc
Maximum Input Current	Steady-State			16	A
No-Load Input Current	Enable state, no Load		400	500	mA
Disabled Input Current	Disabled State		50	100	mA
Enable Characteristics	Internal pull-up voltage, ref. to Vi(-)			5.5	Vdc
	Input Impedance, internal pull-up		140		Kohms
Enable - Positive Logic Version	On State Range	1.8		12	Vdc
	Off State Range	0		1.2	Vdc

Table 2:

Output Characteristics	Notes and Conditions (1)	Min	Typ	Max	Units
Output Voltage Set Point	5-Bit DAC Controlled	1.70	2.5	2.90	Vdc
Output Line Regulation		-5		5	mV
Output Load Regulation		-5		5	mV
Output Voltage Total Regulation		-2.5		2.5	%
Output Ripple Voltage & Noise (2)	20 MHz Bandwidth			100	mVp-p
Output Current Operating Range		0		60	A
Efficiency	Io = 60A		90	86	%
Turn-on Time	Vin = 11.04V			15	mS
Start-up Inhibit Time	Enabled: Vin applied to 90% Vout		3	4	mS
Transient Response (3)	50% step, 30A/μS, ΔVo	-5		5	%
	Recovery Time		100	130	μS

Table 2:

Output Characteristics	Notes and Conditions (1)	Min	Typ	Max	Units
Remote Sense Compensation Range (4)		0		100	mV
Required Output Capacitance		4,100		10,000	μF

Table 3:

Protection Characteristics	Notes and Conditions (1)	Min	Typ	Max	Units
Output Overcurrent Inception Limit	Io = 60A			150%	A
Short Circuit Current	Peak			120	Ap
Overvoltage Shutdown	Non-Latching	3.3	3.45	3.6	Vout

Table 4:

General Characteristics	Notes and Conditions (1)	Min	Typ	Max	Units
Storage Temperature Range	Non-condensing	-40		70	°C
Operating Temperature Range		0		50	°C
Material Flammability	UL 94V-0				
MTBF	Calculated (RAC PRISM at 50°C)		1.2		x10 ⁶ Hrs
	Demonstrated		TBD		x10 ⁶ Hrs
Switching Frequency	Per phase (3 phases)		230		KHz
Dimensions	3.8"L x 1.25"H x 0.8"W	-.03		.03	inches
Weight					g

Table 5:

Standards Compliance	Notes and Conditions (8)
UL/CSA 60950	Basic Insulation, UL File#, CSA File# (as applicable)
EN60950	Certified by TUV (as applicable)

Notes:

1. Vin = 12Vdc, Ta = 25°C, Airflow = 400LFM unless otherwise noted.
2. Output Ripple Voltage is specified when measured with recommended output capacitance.
3. Transient response is specified with recommended output capacitance.
4. If remote sense is not required or used, the Sense(+) and Sense(-) pins must be connected to Vo(+) and Vo(-) respectively.

Mechanical Information

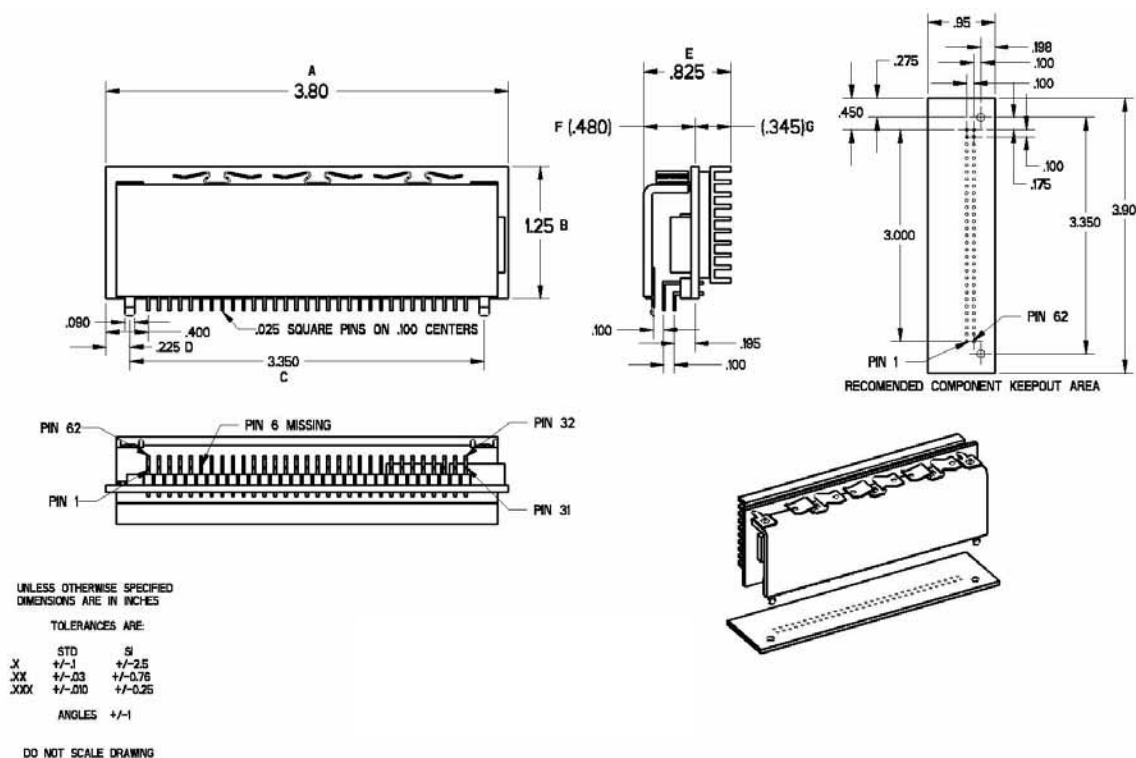


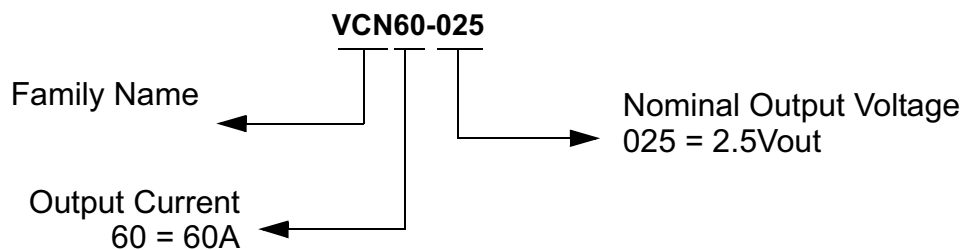
Figure 1 VCN60-025

Pin Assignment

Table 6:

Pin #	Pin Name	Pin #	Pin Name	Pin #	Pin Name	Pin #	Pin Name
1	VIN+	17	VO-	33	VO+	48	VO-
2	VIN+	18	VO+	34	VO-	49	VO+
3	VIN+	19	VO-	35	VO+	50	VO+
4	VIN+	20	VO+	36	VO-	51	Ground
5	Reserved	21	VO-	37	VO+	52	VO-sen+
6	KEY	22	VO+	38	VO-	53	OUTEN
7	VID3	23	VO-	39	VO+	54	Reserved
8	VID1	24	VO+	40	VO-	55	VID0
9	Ground	25	VO-	41	VO+	56	VID2
10	PWRGD	26	VO+	42	VO-	57	VID4
11	VO-sen-	27	VO-	43	VO+	58	VRM-pres
12	Reserved	28	VO+	44	VO-	59	VIN-
13	VO-	29	VO-	45	VO+	60	VIN-
14	VO+	30	VO+	46	VO-	61	VIN-
15	VO-	31	VO-	47	VO+	62	VIN-
16	VO+	32	VO-				

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