Murata Power Solutions

DC/DC Converter

Programmable, Single Output, 1.100V - 1.85V @ 80A

Voltage Regulator Module

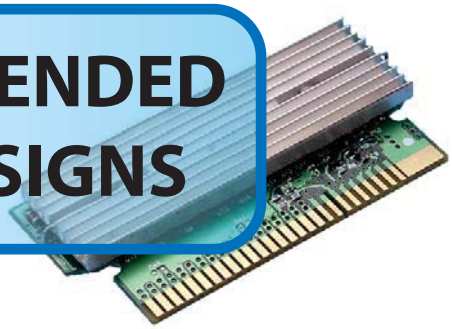
VRM 9.1S

Model: VR091B080CL

Features

- Meets VRM9.1 Requirements
- DAC Programmable Output Voltage
- Active Current Sharing within 10%
- Input Fuse Protected
- Power Good Output
- Remote Sense
- Remote Enable
- Supervisory Functions
  - Output Over-Voltage Latch-Off
  - Output Over-Current
  - Short Circuit Protection

NOT RECOMMENDED FOR NEW DESIGNS



1.100V - 1.85V Output @ 80 Amps
Multi-Phase Buck Topology

Table 1:

Specifications	Notes and Conditions (1)	Min	Typ	Max	Units
Input Voltage Operating Range	Io = 0 to 80 Amps	11.04	12.00	12.60	Vdc
Input Current Slew Rate			0.25	1.0	A/µS
Output Voltage (Vo)	5-Bit DAC Controlled	1.075		1.85	V
Output Current (Io)		0		80	A
Output di/dt	100% Load Step			50	A/µS
Efficiency	Vo = 1.5V, Io = 80A	80	84		%
Turn-on Time	Vin = 11.04V			50	mS
Over-Voltage Shutdown	Vo	2.10	2.25	2.40	V
Over-Current Limit	Io = 80 Amps			150	%
Operating Temperature	Io = 80 Amps	0		60	°C
Storage temperature		-40		70	°C
Dimensions	3.8”L x 1.8”H x 0.58”W				
Reliability	MTBF Prediction per RAC Prism @ 55°C		1,004,924 hours		

Mechanical Information

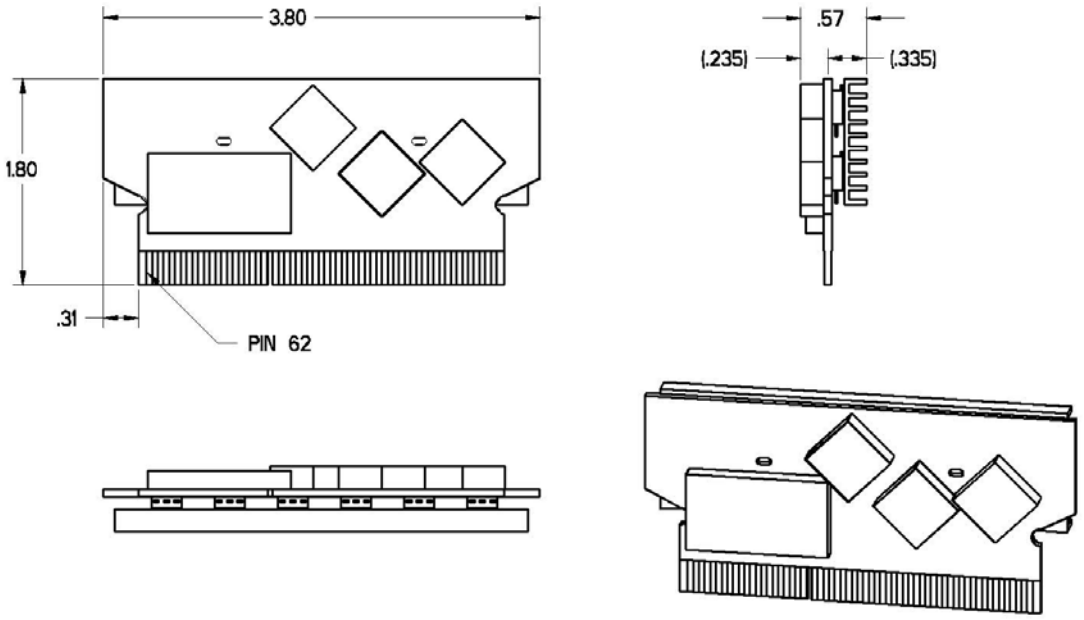


Figure 1

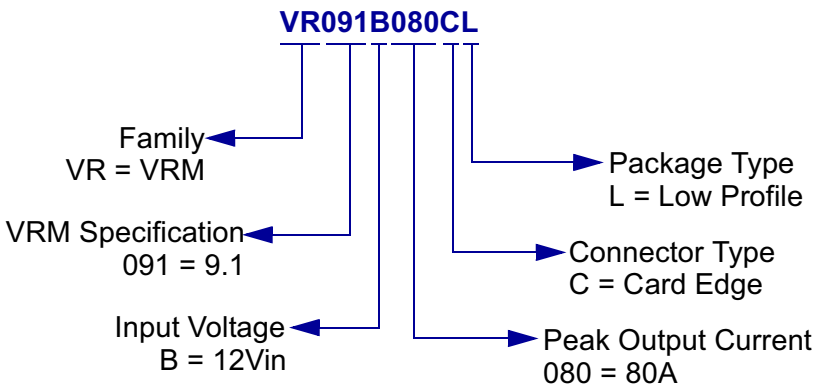
Pinout Information

Table 2:

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

* Notch of this product will be between pins 11 & 12 and 51 & 52
* Recommended connector= AMP#1489165-3 = VRM9.1 Rating

Ordering Information



Murata Power Solutions

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01/19/09

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