

Product Brief: Metamere iBA Series – Non-isolated Surface Mount Power Module

Metamere iBA Series DC/DC Power Modules 3 and 5V Inputs, 8A Output Surface Mount Power Module



The Metamere Series offers a 26W power module in the industry's standard surface-mount footprint. The Metamere series utilizes a low component count that results in a low cost while still providing high performance. The open-frame, compact design provides flexibility by performing local voltage conversion of either a 5V or 3.3V bus. The low weight, surface mount design is well suited for almost any manufacturing environment.

Features

- **Size – 20.3mm x 11.4 mm x 8.76 mm (0.8 in. x 0.45 in. x 0.345 in.)**
- **Surface mountable**
- **Maximum weight 7g (0.25 oz)**
- **Up to 26W of output power in high ambient temperature, low airflow environments with minimal power derating**
- **Positive logic on/off**
- **Starts with pre-biased output**
- Output voltage adjustment
- Constant switching frequency
- Full, auto-recovery protection:
 - Input under voltage
 - Short circuit
 - Thermal limit
- Applying for UL 60950 (US and Canada), VDE 0805, CB scheme (IEC950) Safety markings

Optional Features

- On/Off (negative logic)

Base Product Code	Input Voltage	Output Voltage	Output Current	Efficiency
iBA05008A008V	3-5.5	0.75-3.63V	8A	94%

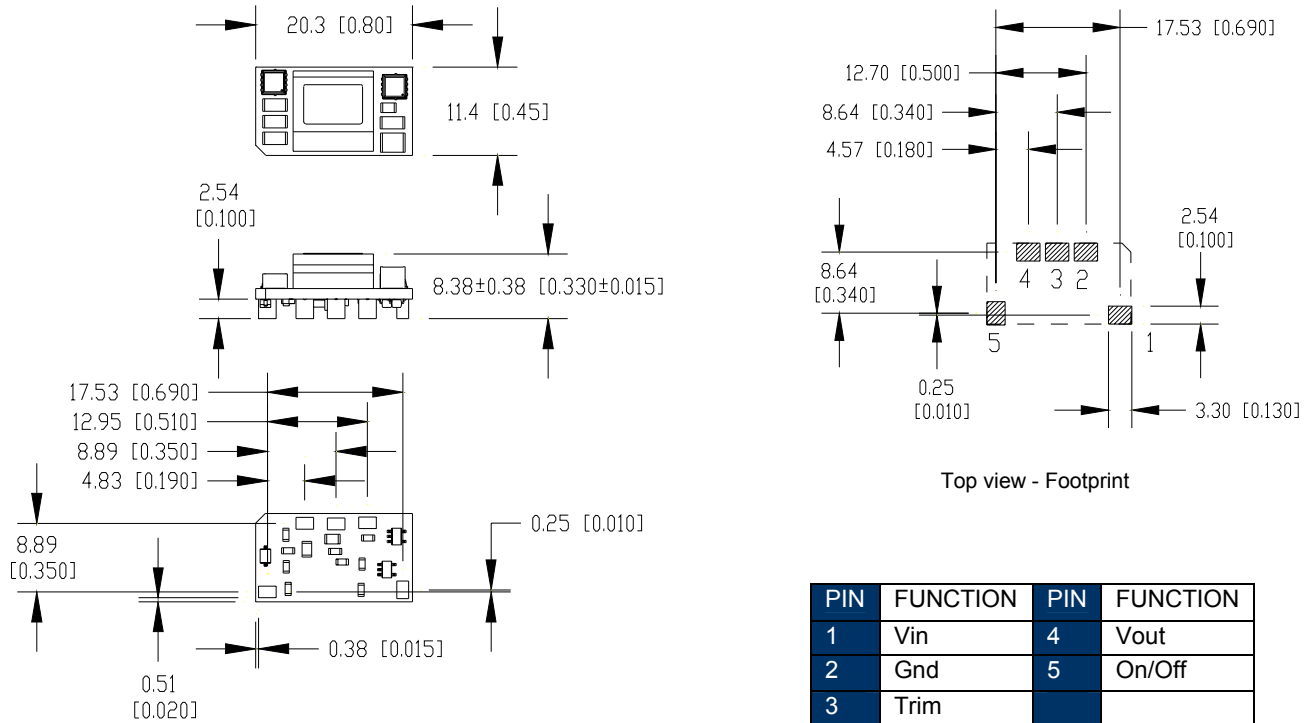
Typical Performance

Input Characteristics		
Operating input range	3-5.5V	Except 3.3V output
Transient input voltage	6V	100mS max
Turn-on voltage	2.5V	
Turn-off voltage	2.1V	
Start-up time	20 mS	On/Off to 90% Vout
Maximum input current	8A	Input 0-5.5V, I _{o,max}
Output Characteristics		
Output voltage tolerance 3.3V and below	+/- 3.5% max	Over line, load, and temp to end of life
Efficiency	see product table	I _{o,max}
Line regulation	5 mV	Over rated input
Load regulation	15mV	Over rated load
Output voltage adjustment	0.75V – 3.63V	
Output ripple	50 mVp-p	20MHz bandwidth
Dynamic response		Load step 25% of I _{o,max} slew rate =2.5A/us
Transient voltage	100 mV	
Recovery time	25 uS	
Ripple frequency	300 kHz	Fixed
Protection		
Current limit inception	200% of I _{o,rated}	
Short circuit	I _{o,rated}	Auto-recovery hiccup
Environmental		
Operating temperature	-40C to 125C	Measurement point in full datasheet



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Dimensions are in mm [inches]



PIN	FUNCTION	PIN	FUNCTION
1	Vin	4	Vout
2	Gnd	5	On/Off
3	Trim		

Ordering Information

Product Identifier	Package Size	Platform	Input Voltage	Output Current/Power	Output Units	Main Output Voltage	# of Outputs	Safety Class	Feature Set
i	B	A	05	008	A	008	V	- 0	00
TDK Innoveta	20mm x 11 mm	Metamere SMT	3-5.5V	008 –8	Amps	008 - 0.75V to 3.63V	Single		00 – Standard



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Feature Set	On/Off Logic
00	Positive
01	Negative

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