

- Standard Industry Footprint (DOSA)
- 3.0-5.5V and 6.0-14.0V Input
- 0.8-5.0V Nominal Outputs
- Surface Mount
- Low 8.5mm Profile
- Non Isolated Output

iAA/iAC Series

15 to 16A

Point of Load Converter

iAA / iAC Features and Benefits

Features

- High operating efficiency (up to 95%)
- Constant switching frequency
- Starts with pre-biased output

Benefits

- Reduced system heating
- Easier system filtering
- Supports complex digital systems

Specifications					
MODEL		iAA05015A008V	iAA05015A025V	iAA05015A033V	iAC12016A008V
ITEMS					
Nominal Output Voltage	VDC	0.75-3.63	2.5	3.3	0.8 - 5.0
Input Voltage Range	VDC	3.0-5.5 (2)	3.0-5.5 (2)	4.5-5.5	6.0 ⁽¹⁾ - 14
Input Current (max)	A		16		18
Output Voltage Tolerance	VDC	±3.3% Vo, set	2.413 - 2.588	3.19 - 3.41	-2.5 to +3.5% Vo, set
Ripple & Noise (max) (pk to pk) (3)	mV		75		100
Line Regulation (max)	mV		5		10
Load Regulation (max)	mV		10		15
Overload Protection	%	Inception - 175-235% of rated output; Short circuit - auto recovery			
Overvoltage Protection	-	N/A			
Remote Sense	-	Yes			
Remote On / Off	-	Positive or Negative Logic available, see Feature Set			
Sequencing	-	Not Available			See Feature Set
Temperature (operating)	°C	-40°C to +125°C			
Temperature (storage)	°C	-55°C to +125°C			
Humidity (operating)	-	20 - 95% RH Non condensing			
Humidity (storage)	-	Per IPC / JEDEC J-STD-020, for MSL-2 (<30C/60%RH) in original packaging			
Cooling	-	Convection or forced air			
Isolation Voltage	-	N/A			
Vibration (non operating)	-	5 to 50Hz @ 0.5g (4.9m/s ²), and 50 to 500Hz @ 1.5g (14.7m/s ²) per Bellcore TR-EOP-000063-5.4.4			
Shock	-	196.1m/s ²			
Safety Agency Approvals	-	UL60950 (US and Canada), VDE0805 (IEC60950), CB scheme (IEC60950)			
Weight (max)	g	12			
Size	mm	33 x 13.5 x 8.5			
Warranty	yrs	3			

Notes:

- (1) 8.3 - 14V when output is >3.63V
- (2) 4.5 - 5.5V when output is >3.0V
- (3) Measured across one 0.1µF ceramic capacitor and one 47µF ceramic capacitor; BW = 20MHz

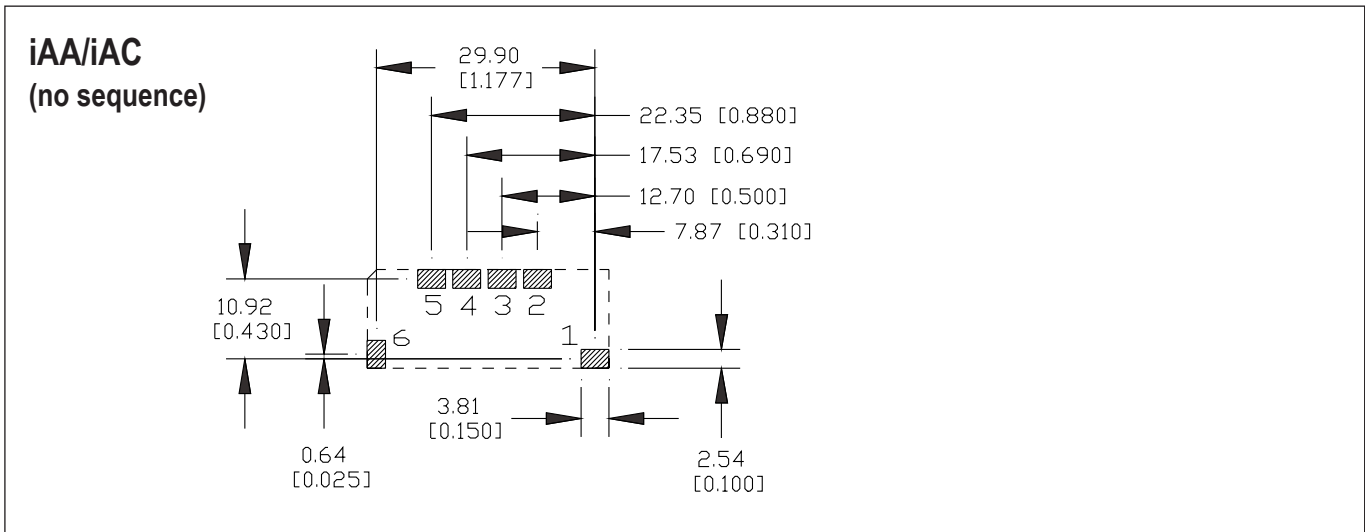
Model Selector					
Model	Voltage Voltage (V)	Adjust Adjust (V)	Output Curr. (A)	Max. Output Power (W)	Efficiency at Full Load (%)
iAA05015A008V-000-R	0.75 - 3.63	0.75 - 3.63	15	49.5	94.5
iAA05015A008V-001-R	0.75 - 3.63	0.75 - 3.63	15	49.5	94.5
iAC12016A008V-000-R	0.8 - 5.0	0.8 - 5.0	16	80	94
iAC12016A008V-001-R	0.8 - 5.0	0.8 - 5.0	16	80	94
iAC12016A008V-002-R	0.8 - 5.0	0.8 - 5.0	16	80	94
iAC12016A008V-003-R	0.8 - 5.0	0.8 - 5.0	16	80	94

NB other configurations on request

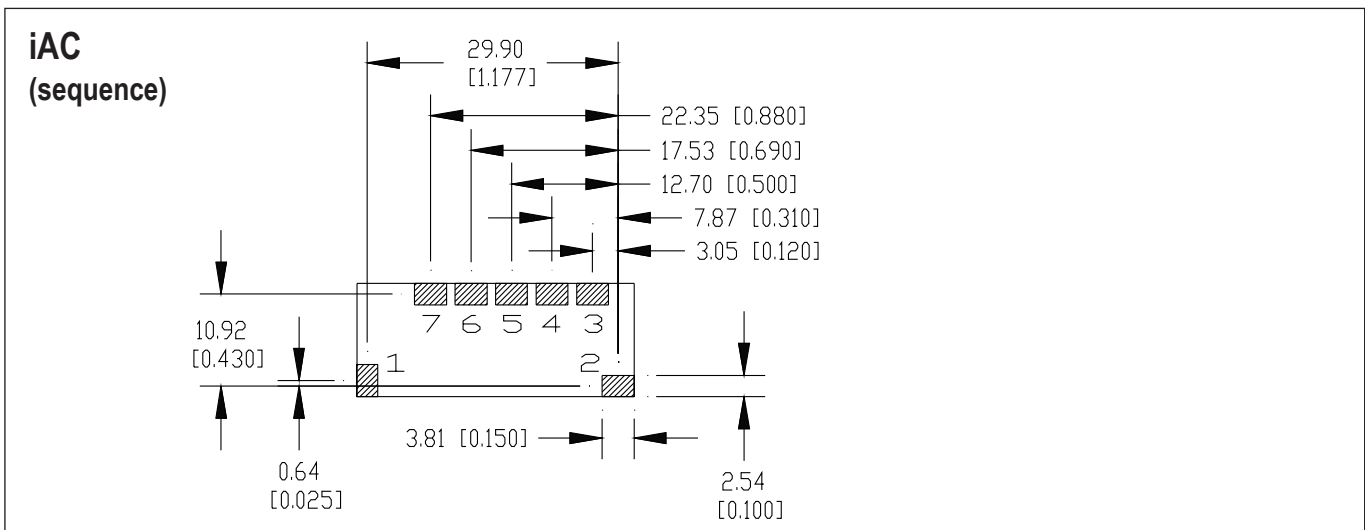
Feature Set					
	Feature Set	Pos. Logic On / Off	Neg. Logic On / Off	Input Voltage	Sequencing
iAA	00	X			
	01*		X		
iAC	00	X		6.0 - 14.0	X
	01*		X	6.0 - 14.0	X
	02	X		6.0 - 14.0	
	03		X	6.0 - 14.0	
* Preferred feature set Model Number Example: iAC12016A008V-001-R					

Pinout			
PIN	iAA	Function	
		iAC(Seq)	iAC(No Seq)
1	Vin	On/Off	On/Off
2	Gnd	Vin	Vin
3	Vout	Seq	Gnd
4	Trim	Gnd	Vout
5	Sense	Vout	Trim
6	On/Off	Trim	Sense
7	-	Sense	-

Recommended Footprint (Top View) iAA/iAC (no sequence) Series



Recommended Footprint (Top View) iAC Series



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