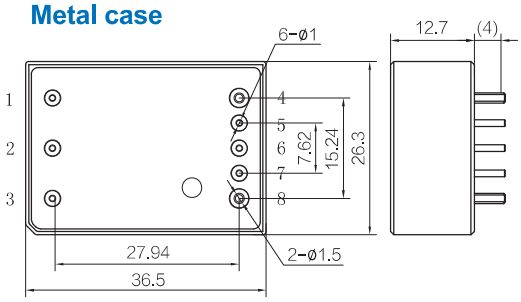
1/16 Brick DC-DC Converter

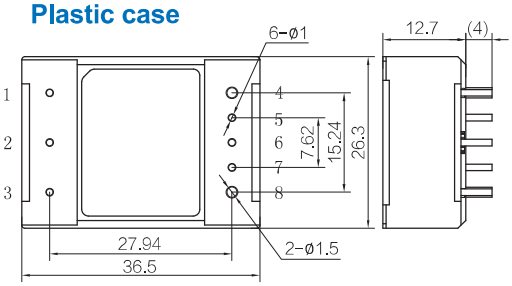
- High power density up to 110W/inch³
- High efficiency up to 92%
- 4:1 input ratio
- Trim range: 80%~110%
- Monotonic start-up into pre-bias load
- Input under / over voltage protection
- Output over-current protection
- Output over voltage protection
- Over temperature protection
- Logic control
- Open frame or encapsulated

Mechanical Specifications

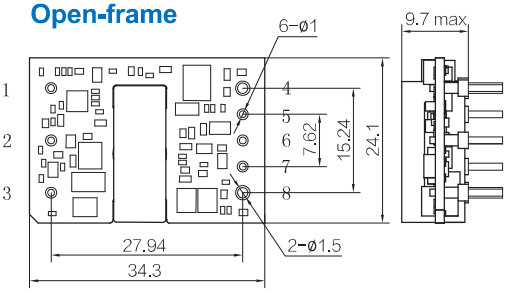
Metal case



Plastic case



Open-frame



Pin	Function
1	-VIN
2	ON/OFF
3	+VIN
4	-VO
5	-S
6	TRIM
7	+S
8	+VO

Unit: mm Deviation: .X=±0.25 .XX=±0.10 Pin: ±0.25

Specif ication Parameter

Parameter		Unit	EVBS050-048S3V3	EVBS050-048S05	EVBS050-048S08	EVBS050-048S12
Input	Input voltage	Vdc	−0.3~80			
	Input voltage (100ms)	Vdc	−0.3~100			
	Operating voltage	Vdc	18~75			
	Remote off input current	mA	6			
	Inrush current transient	A^2s	–			
	Input opening voltage	Vdc	17			
	Input On and Off voltage	Vdc	15			
	Lockout hysteresis voltage	Vdc	2			
	Input turn off voltage	Vdc	83			
	Input current (max.)	A	3.5			
	Input current (no load)	mA	50			
	Switching frequency	kHz	350			
Output	Output voltage	Vdc	3.3	5	8	12
	Output current	A	15.2	10	6.3	4.2
	Output power (max.)	W	50			
	Typical efficiency	%	90.5	91	92	91
	Output voltage trim range	%Vo, set	−20~10			
	Output voltage regulation	%Vo, set	0.2			
	Load regulation	%Vo, set	0.2			
	Regulation over temperature	%Vo, set	3			
	Output ripple and noise					
	Full load: PK−PK	%Vo, set	3%，400μs			
	RMS	mVrms	–			
	Output capacitance	uF	5000	5000	2200	2200
	Output current limit	%Io, set	120			
	Over voltage protection	%Vo, set	120			
	Transient response					
	Io=50% to 75% full load: PK−PK	%Vo, set	3%，400μs			
	Over−temperature shutdown	℃	105 (TC)			
	OCP hiccup time	sec	5			
	OVP hiccup time	sec	2.5			
Others	Operating temperature	℃	−50~85			
	Storage temperature	℃	−55~125			
	Input/output isolation voltage	Vdc	2250			
	Size (L*W*H)	mm	36.5*26.3*12.7			