

SRBH-06H1A1

Non-Isolated DC-DC Converter

The SRBH-06H1A1 is part of the low cost non-isolated dc/dc power converter series providing up to 6A output current.

The output is closely regulated and the efficiency of 3.3Vdc output is typically 89% at full load.

Typical features include remote on/off, input under voltage lockout, over current protection and short circuit protection.

Key Features & Benefits

- 8-36 VDC Input / 3.3-5 VDC @ 6 A Output
- Non-isolated output
- High Efficiency
- High Power Density
- Excellent Thermal Performance
- OCP/SCP
- Remote On/Off
- Input Under Voltage Lockout
- Low Cost
- Class 2, Category 2, Non-Isolated DC/DC Converter (refer to IPC-9592B)

Applications

- Distributed Power Architectures
- Data Networking Equipment
- Telecommunications Applications



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1. MODEL SELECTION

MODEL NUMBER	OUTPUT VOLTAGE	INPUT VOLTAGE	MAX. OUTPUT CURRENT	MAX. OUTPUT POWER	TYPICAL EFFICIENCY
SRBH-06H1A1	3.3V -5V	8 V- 36 V	6 A	30 W	89%(Vo=3.3, Io=6A)

NOTE: Add "R" indicating Tape and Reel packaging.

PART NUMBER EXPLANATION

S	R	BH	-	06	H	1A	1	R
Mounting Type	RoHS Status	Series Name		Output Current	Input Range	Output Voltage	Active Logic	Package Type
SMD	RoHS	Arrow Head		6A	8V – 36V	3.3V -5.0V	Active High	R – Tape & Reel

2. ABSOLUTE MAXIMUM RATINGS

PARAMETER	DESCRIPTION	MIN	TYP	MAX	UNITS
Continuous Non-operating Input Voltage		-0.3	-	38	V
Remote On/Off		-0.3	-	12	V
Ambient Temperature		-40	-	85	°C
Storage Temperature		-40	-	125	°C
Altitude		-	-	2000	m

NOTE: Ratings used beyond the maximum ratings may cause a reliability degradation of the converter or may permanently damage the device.

3. INPUT SPECIFICATIONS

All specifications are typical at 25°C unless otherwise stated.

PARAMETER	DESCRIPTION	MIN	TYP	MAX	UNITS
Operating Input Voltage		8	-	36	V
Input Current (full load)	Vin=12V, Vo=3.3V, Io=6A	-	1.9	-	A
Input Current (no load)		-	30	-	mA
Remote Off Input Current		-	1.7	-	mA
Input Reflected Ripple Current (rms)	1uH, 2*100 uF/50 V electrolytic capacitors, 3*4.7 uF/50V ceramic capacitor at the input.	-	50	100	mA
Input Reflected Ripple Current (pk-pk)		-	70	150	mA
I2t Inrush Current Transient		-	-	1	A2s
Turn on Voltage Threshold	Input under voltage lockout (UVLO).	-	7	7.5	V
Turn off Voltage Threshold		3.5	4	-	V

CAUTION: All specifications are typical at nominal input, full load at 25°C unless noted.