

# SRPE-06E1A0 Series

## Non-Isolated DC-DC Converter

The Bel SRPE-06E1A0 is part of the non-isolated dc/dc converter Power Module series. The modules use a SIP package. These converters are available in a range of output voltages from 0.6 VDC to 5.5 VDC over a wide range of input voltage ( $V_{IN} = 5.5 - 13.2$  VDC). The efficiency is typically 91% at 3.3 Vout ( $V_{in} = 12$  VDC) at full load.



### Key Features & Benefits

- 5.5 VDC – 13.2 VDC Input
- 0.6 VDC – 5.5 VDC /6 A Output
- Non-Isolated
- Under-Voltage Lockout
- High Efficiency
- Wide Trim
- Fixed Frequency
- OCP/SCP
- Low Cost
- Remote On/Off
- Wide Input
- Class II, Category 2, Non-Isolated DC/DC Converter (refer to IPC-9592B)



### Applications

- Networking
- Computers and Peripherals
- Telecommunications

## 1. MODEL SELECTION

OUTPUT VOLTAGE	INPUT VOLTAGE	MAX. OUTPUT CURRENT	MAX. OUTPUT POWER	TYPICAL EFFICIENCY	MODEL NUMBER
0.6 V - 5.5 V	5.5 V - 13.2 V	6 A	33 W	91%	SRPE-06E1A0

**NOTE:** 1. Add “G” or “R” suffix at the end of the model numbers for package.

## PART NUMBER EXPLANATION

S	R	PE	-	06	E	1A	0	x
Mounting type	RoHS Status	Series name		Output current	Input range	Output voltage	Active logic and HSK feature	Package type
Surface mount	RoHS 6	SMD SIP		6A	5.5-13.2V	0.6-5.5V	active high, without HSK	G – Tray R – Tape and Reel

## 2. ABSOLUTE MAXIMUM RATINGS

PARAMETER	DESCRIPTION	MIN	TYP	MAX	UNITS
Input Supply Voltage		-0.3	-	15	V
Remote On/Off		-0.3	-	15	V
Ambient Temperature		0	-	50	°C
Storage Temperature		-55	-	125	°C
Altitude		-	-	2000	m

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

## 3. INPUT SPECIFICATIONS

PARAMETER	DESCRIPTION	MIN	TYP	MAX	UNIT
Input Voltage		5.5	-	13.2	V
Input Current (full load)	This power module is not internally fused. An input line fuse must always be used	-	-	4.9	A
Input Current (no load)		-	50	150	mA
Remote Off Input Current		-	1	5	mA
Input Reflected Ripple Current (rms)	With simulated source impedance of 1000nH, 5Hz to 20MHz. Use a 1000µF/25V AL-Cap with ESR=0.03 ohm max and 2*100µF/25V Tan cap with ESR=0.013 ohm max, at 100KHz@25°C.	-	7	20	mA
Input Reflected Ripple Current (pk-pk)		-	22	40	mA
I <sup>2</sup> t Inrush Current Transient		-	-	1	A <sup>2</sup> s
Turn-on Voltage Threshold		4.15	4.2	4.45	V
Turn-off Voltage Threshold		3.7	4	4.2	V

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