

DC/DC Converter

3 WATT Power, SIP 8, Regulated, Dual Output, Wide 2:1 Input Voltage Range

- **Operating Temperature: -40 ~ +85 (see Derating curve)**
- **I/O Isolation Voltage: Tested up to 1500 VDC**
- **High efficiency up to 83%**
- **Case Material: Black plastic, flame retardant and heat resistant (UL94-V0)**
- **Short Circuit Protection: Continuous, self-recovery**

Variants: Also available with Single Output

All specifications typical at Ta=25°C, humidity less than 75%, nominal input voltage and rated output load unless otherwise specified.

Input Specifications

Input Voltage Range	Vdc	see product
Input Current No Load	mA, typ.	see product
Input Current Full Load	mA, typ.	see product
Hot Plug		Unavailable
Input Filter		Capacitor
Input Reflected Ripple Current	mA, typ.	05/12-Models: 20 Other: 55

Output Specifications

Output Voltage Accuracy	%, typ.	±1 (5-100% load)
Output Voltage	Vdc	see product
Output Current	mA, min.	see product
Output Current	mA, max.	see product
Line Regulation	%, typ.	±0.2
Line Regulation	%, max.	±0.5
Load Regulation (5% to 100%)	%, typ.	±0.6
Ripple and Noise (20 MHz Bandwith)	mV p-p, typ.	40 48Vin 05Vout: 100
Ripple and Noise (20 MHz Bandwith)	mV p-p, max.	75 48Vin 05Vout: 150
Short Circuit Protection		Continuous, self-recovery
Capacitive Load @FL	µF, max.	see product
Transient Recovery Time	ms, typ.	0.5
Transient Response Deviation	%, max.	±5

Ripple and Noise: "parallell cable" is used for ripple and noise test, please refer to PEAK for specific information|

DC/DC Converter

3 WATT Power, SIP 8, Regulated, Dual Output, Wide 2:1 Input Voltage Range

All specifications typical at Ta=25°C, humidity less than 75%, nominal input voltage and rated output load unless otherwise specified.

General Specification

Efficiency @FL	%, typ.	see product
I/O Isolation Voltage(60sec), Input/Output	Vdc	1500
I/O Isolation Capacitance	pF, typ	120 (at 100kHz/0.1V)
I/O Insulation Resistance	M Ohm	1000 (at 500Vdc)
Switching Frequency @FL	kHz, typ	250 (@FL)
Storage Humidity	%, rel H, max.	95% (max., non condensing)
MTBF Reliability Calculated (MIL-HDBK-217F) at 25°C	khrs	>1000
CTR Module ON	Vdc	CTRL pin open (high resistance)
CTR Module OFF	Vdc	CTRL pin pulled high (current 5-10mA typ. Into CTRL)
Operating Temperature	°C	-40 ~ +85 (see Derating curve)
Pin Soldering Resistance Temperature	°C, max.	300
Storage Temperature	°C	-55 ~ +125
Cooling		Free air convection
Case Material		Black plastic, flame retardant and heat resistant (UL94-V0)
Weight	g	4.5
Dimension	mm	22.0 x 9.5 x 12.0
Certification		CE (designed to meet)

I/O Isolation Voltage: Test time of 1 minute and leak current lower than 1mA]

DC/DC Converter

3 WATT Power, SIP 8, Regulated, Dual Output, Wide 2:1 Input Voltage Range

All specifications typical at Ta=25°C, humidity less than 75%, nominal input voltage and rated output load unless otherwise specified.

Special Characteristics

Surge Voltage (1sec.)	Vdc, min.	-0.7
Surge Voltage (1sec.)	Vdc, max.	05 Models: 12 12 Models: 25 24 Models: 50 48 Models: 100
Start-up Voltage	ms, max.	05 Models: 4.5 12 Models: 9 24 Models: 18 48 Models: 36

Product Overview

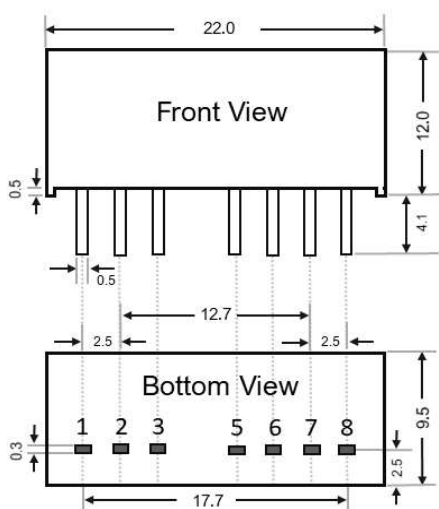
ARTICLE CODE	Input Voltage Range	Input Current No Load	Input Current Full Load	Output Voltage	Output Current	Output Current	Capacitive Load @FL	Efficiency @FL
	Vdc	mA, typ.	mA, typ.	Vdc	mA, min.	mA, max.	µF, max.	%, typ.
3-S8R-0505Z2:1B	5 (4.5-9)	40	805	±5	±13	±250	1000	74
3-S8R-0512Z2:1B	5 (4.5-9)	40	805	±12	±5	±104	470	77
3-S8R-0515Z2:1B	5 (4.5-9)	40	805	±15	±4	±83	330	77
3-S8R-0524Z2:1B	5 (4.5-9)	40	805	±24	±3	±52	220	76
3-S8R-1205Z2:1B	12 (9-18)	30	314	±5	±15	±300	1000	78
3-S8R-1209Z2:1B	12 (9-18)	30	314	±9	±8	±167	680	78
3-S8R-1212Z2:1B	12 (9-18)	30	314	±12	±6	±125	470	79
3-S8R-1215Z2:1B	12 (9-18)	30	314	±15	±5	±100	330	80
3-S8R-2405Z2:1B	24 (18-36)	20	154	±5	±15	±300	1000	79
3-S8R-2409Z2:1B	24 (18-36)	20	154	±9	±8	±167	680	81
3-S8R-2412Z2:1B	24 (18-36)	20	154	±12	±6	±125	470	83
3-S8R-2415Z2:1B	24 (18-36)	20	154	±15	±5	±100	330	83
3-S8R-4805Z2:1B	48 (36-75)	5	78	±5	±15	±300	1000	79
3-S8R-4812Z2:1B	48 (36-75)	5	78	±12	±6	±125	470	82
3-S8R-4815Z2:1B	48 (36-75)	5	78	±15	±5	±100	330	82

Variants: Also available with Single Output

DC/DC Converter

3 WATT Power, SIP 8, Regulated, Dual Output, Wide 2:1 Input Voltage Range

Technical Drawings



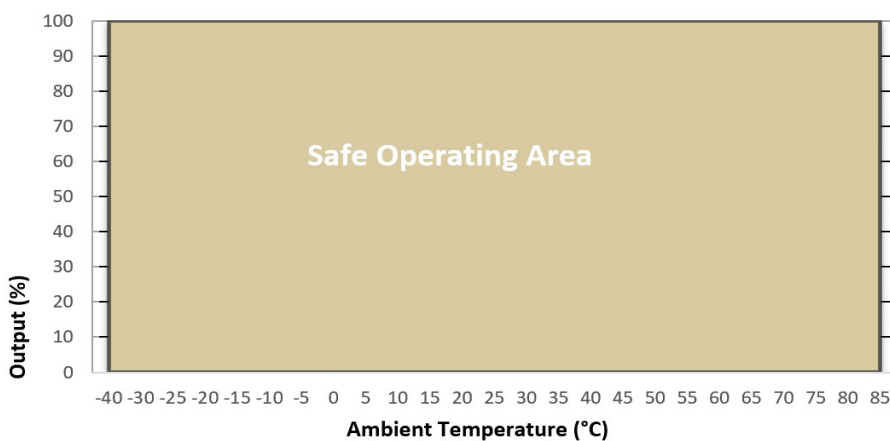
All dimensions in millimetres | General tolerances: ± 0.5
 Specifications may change without notice

PIN Connections

PIN 01	GND
PIN 02	Vin
PIN 03	CTRL
PIN 05	N.C.
PIN 06	+Vo
PIN 07	0V
PIN 08	-Vo

Derating Curve

Temperature Derating Curve



Please Note: Exposure of devices to any of these conditions may adversely affect long-term reliability. Do not operate the devices exceeding the absolute maximum rating, over rating causes damage to the unit(s).

PEAK Application Support: For more information regarding the EMC or other technical requests please feel free to contact our Application Support Team by email peak@peak-electronics.de or phone +49(0)6135-70260.