

# Flyback Transformers for DC/DC Embedded Applications FLYT Series



- Microspire's «SESI Technology» planar solution for DC/DC flyback converters
- Seven standard packages in a qualified technology for extreme working conditions
- Compliant with MIL-STD-202, ECSS-Q-70-02 (aerospace) and DO-160 (avionics) standards
- Already evaluated by the CNES for space applications (ESCC Capability Approval in process)
- Low profile and light, highly efficient and reliable
- Extended operating temperature range from  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- SMD versions suited for IR and vapor reflow soldering
- Packaging in Tape&Reel upon request for SMD versions

Package	Indicative Max Output Power at 100KHz (W)	Max Dimensions (LxWxH in mm)	Number of Pins	Weight (grams)	Permitted Losses * for 25°C heating above 100°C (W)
SESI 15 W – FLYT 15	5	22 x 16 x 8	2 x 4 SMD	5	0.6
SESI 15.1 W – FLYT 15.1	5	22 x 16 x 8	2 x 6 SMD	5	0.6
SESI 18 W – FLYT 18	15	26 x 20 x 8,9	2 x 4 SMD	10	0.8
SESI 18.1 W – FLYT 18.1	15	36 x 20 x 8,9	2 x 9 SMD	12	0.8
SESI 22 – FLYT 22	30	37 x 24 x 11,9	2 x 4 SMD	26	1.1
SESI 22.1 W – FLYT 22.1	30	39 x 24 x 11,9	2 x 8 SMD	26	1.1
SESI 32 W/P – FLYT 32	65	49 x 34 x 13,7	2 x 8 PTH**	56	1.7

\* Values without heatsink ; these values can be increased with appropriate cooling device

\*\* Through-hole terminations only

## Electrical Data Examples

Package	DC Input Voltage Range (Vdc)	Output Power (W)	Designed Outputs	Working Frequency	Primary Inductance	Insulation > 100 MΩ
SESI 15 / 15.1 W	12 - 20.5V [2° - 1]	1.5W	5V / 280mA -5V / 20mA	80 - 120kHz	90μF	500Vdc
	26 - 29V [2° - 1]	1.1W - 2.2W	5.2V / 400mA	130kHz	256μF	500Vdc
	26 - 29V [2° - 1]	2.1W - 2.4W	9V / 250mA	130kHz	231μF	500Vdc
	18 - 40V [1° - 2]	2.4W	48V / 50mA	500kHz	23μF	1500Vdc
	18 - 40V [1° - 2]	3.3W	2x3.3V / 0.5A	500kHz	17.9μF	1500Vdc
	18 - 40V [1° - 2]	4.5W	15V / 5.2V / 1A	500kHz	13μF	1500Vdc
	18 - 40V [1° - 2]	10.5W	2x5.2V / 1A	500kHz	6.2μF	1500Vdc
SESI 18 / 18.1 W	23 - 37V [2° - 1]	3.85W	3.5V / 1A	100kHz	152.5μF	500Vdc
	23 - 37V [2° - 1]	4.56W	-15.25V / 300mA 15.25V / 50mA	100kHz	126μF	500Vdc
	23 - 37V [2° - 1]	5.25W	5.25V / 1A	100kHz	113.7μF	500Vdc
	23 - 37V [2° - 1]	9.45W	5.25V / 1.8A	100kHz	61.7μF	1500Vdc
SESI 22 / 22.1 W	12 - 20.5V [2° - 1]	18.5W	5V / 450mA 22V / 600mA	90 - 130kHz	13μF	500Vdc
	12 - 20.5V [3° - 4]	19.5W	5V / 340mA 12V / 1.2mA	90 - 130kHz	13μF	500Vdc
Each Flyback Transformer shall be the result of a common definition after technical agreement between both engineering teams						

