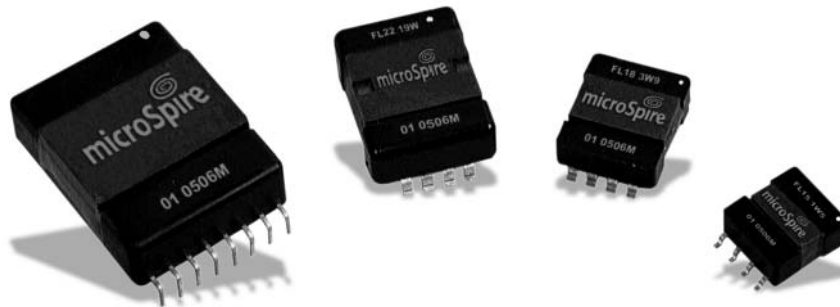


Flyback Transformers for DC/DC Embedded Applications

FLYT Series



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)
FLYT15	5	22 x 16 x 8	2 x 4 SMD	5	0.6
FLYT15.1***	5	22 x 16 x 8	2 x 6 SMD	5	0.6
FLYT18	15	26 x 20 x 8,9	2 x 4 SMD	10	0.8
FLYT18.1***	15	36 x 20 x 8,9	2 x 9 SMD	12	0.8
FLYT22	30	37 x 24 x 11,9	2 x 4 SMD	26	1.1
FLYT22.1***	30	39 x 24 x 11,9	2 x 8 SMD	26	1.1
FLYT32***	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

*** See Micromag N° 1 for more information

- 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°C to +125°C
- SMD versions suited for IR and vapor reflow soldering
- Packaging in Tape&Reel upon request for SMD versions

Shielded versions with thin six-face tinned copper box upon request (3 times less EMI radiation)



Flyback Transformers for DC/DC converters - FLYT 15 Series



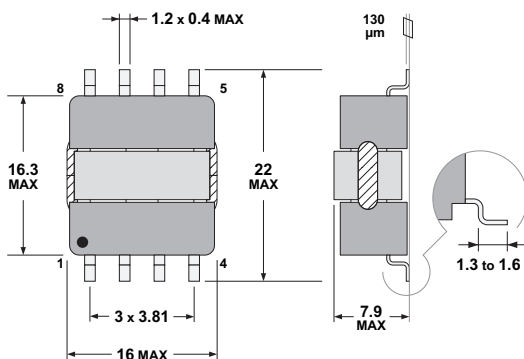
- Based on Microspire's « SESI15 Planar Technology »
- Low-profile SMD package (2x4 pins)
- Applied standards: MIL-STD-202, ECSS-Q-70-02, DO-160D
- Up to 15W at 100kHz in standard heating conditions
- Dielectric strength up to 1500V (50Hz-1min)
- Materials meet UL94-V0 rating
- Thermal index according to IEC85: H (180 °C)
- Operating/storage temperature range : -55 °C to +125 °C
- Approx weight : 5grams

Electrical Data

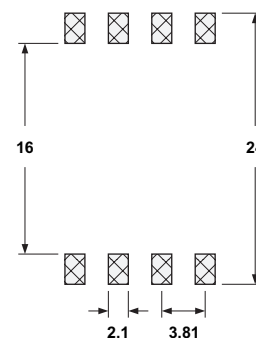
ID Code	DC Input Voltage Range (Vdc)	Output Power (W)	Designed Outputs	Working Frequency	Primary Inductance	Insulation > 100MΩ
FLYT15 1W5 01	12 - 20.5V (2° - 1)	1.5	5V / 280mA (7° - 8) -5V / 20mA (5° - 6)	80 - 120kHz	90μH	500Vdc
FLYT15 2W2 01	26 - 29V (2° - 1)	1.1 - 2.2	5,2V / 400mA (7/8° - 5/6) BIAS (3° - 4) optional	130kHz	256μH	500Vdc
FLYT15 2W4 01	26 - 29V (2° - 1)	2.1 - 2.4	9V / 250mA (7/8° - 5/6) BIAS (3° - 4) optional	130kHz	231μH	500Vdc
FLYT15 2W4 02	18 - 40V (1° - 2)	2.4	48V / 50mA (8° - 7)	500kHz	23μH	1500Vdc
FLYT15 3W3 01	18 - 40V (1° - 2)	3.3	3,3V / 0,5A (8° - 7) 3,3V / 0,5A (6° - 5)	500kHz	17.9μH	1500Vdc
FLYT15 4W5 01	18 - 40V (1° - 2)	4.5	15V / 0,3A (8° - 7)	500kHz	13μH	1500Vdc
FLYT15 10W 01	18 - 40V (1° - 2)	10.5	5,2V / 1A (8° - 7) 5,2V / 1A (6° - 5) BIAS (3° - 4) optional	500kHz	6.2μH	1500Vdc

Each Flyback Transformer shall be the result of a common definition after technical agreement between both engineering teams

Typical Dimensions (mm, top view)

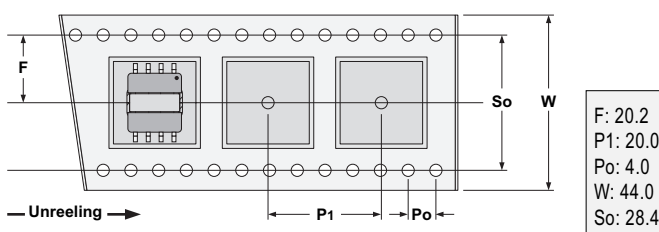


PCB Layout (suggested)

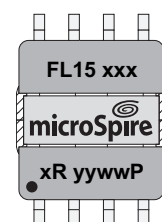


Packaging

Tape and Reel:
400 units per reel of diameter 330 mm



Marking



yyww :
Date code



Flyback Transformers for DC/DC converters - FLYT 18 Series



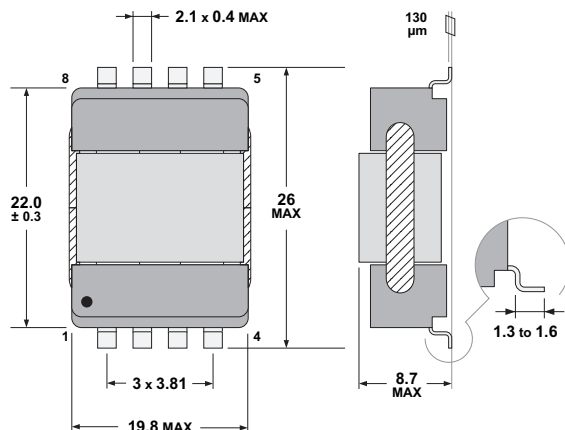
- Based on Microspire's « SES18 Planar Technology »
- Low-profile SMD package (2x4 pins)
- Applied standards : MIL-STD-202, ECSS-Q-70-02, DO-160D
- Up to 15W at 100kHz in standard heating conditions
- Dielectric strength up to 1500V (50Hz-1min)
- Materials meet UL94-V0 rating
- Thermal index according to IEC85: H (180°C)
- Operating/storage temperature range: -55°C to +125°C
- Approx weight: 10grams

Electrical Data

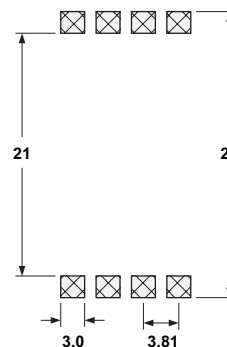
ID Code	DC Input Voltage Range (Vdc)	Output Power (W)	Designed Outputs	Working Frequency	Primary Inductance	Insulation > 100MΩ
FLYT18 3W9 01	23 - 37V (2° - 1)	3.85	3,55V / 1A (7/8° - 5/6) BIAS (3° - 4)	100kHz	152.5μH	500Vdc
FLYT18 4W6 01	23 - 37V (2° - 1)	4.56	-15,25V / 300mA (8° - 7) 15,25V / 50mA (6° - 5) BIAS (3° - 4)	100kHz	126μH	500Vdc
FLYT18 5W3 01	23 - 37V (2° - 1)	5.25	5,25V / 1A (7/8° - 5/6) BIAS (3° - 4)	100kHz	113.7μH	500Vdc
FLYT18 9W5 01	23 - 37V (2° - 1)	9.45	5,25V / 1,8A (7/8° - 5/6) BIAS (3° - 4)	100kHz	61.7μH	1500Vdc

Each Flyback Transformer shall be the result of a common definition after technical agreement between both engineering teams

Typical Dimensions (mm, top view)

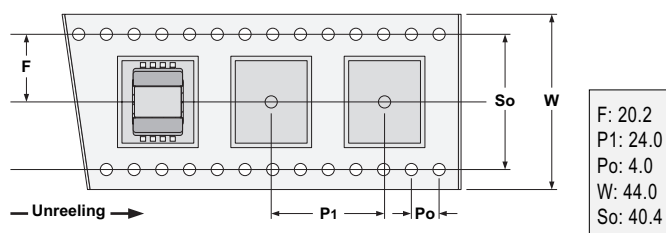


PCB Layout (suggested)

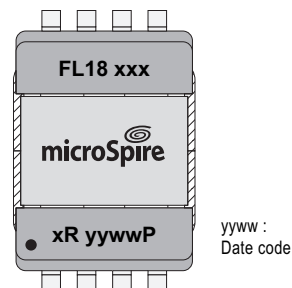


Packaging

Tape and Reel:
300 pieces per reel of diameter 330 mm



Marking



Flyback Transformers for DC/DC converters - FLYT 22 Series



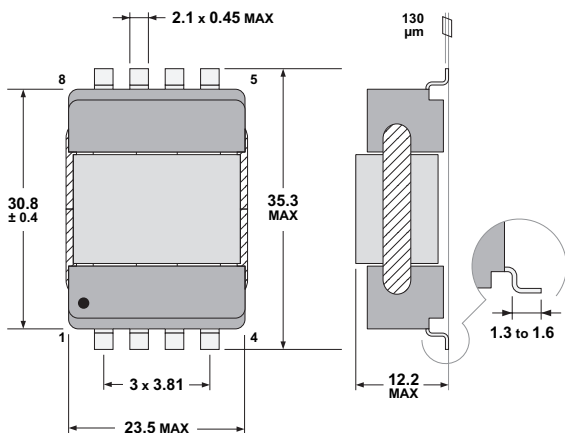
- Based on Microspire's « SESI22 Planar Technology »
- Low-profile SMD package (2x4 pins)
- Applied standards: MIL-STD-202, ECSS-Q-70-02, DO-160D
- Up to 30W at 100kHz in standard heating conditions
- Dielectric strength up to 1500V (50Hz-1min)
- Materials meet UL94-V0 rating
- Thermal index according to IEC85: H (180 °C)
- Operating/storage temperature range: -55 °C to +125 °C
- Approx weight: 26grams

Electrical Data

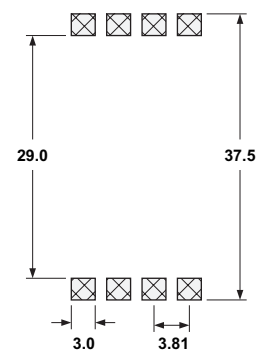
ID Code	DC Input Voltage Range (Vdc)	Output Power (W)	Designed Outputs	Working Frequency	Primary Inductance	Insulation > 100MΩ
FLYT22 19W 01	12 - 20.5V (2° - 1)	18.5	5V / 450mA (8° - 7) 22V / 600mA (8° - 5)	90 - 130kHz	13μH	500Vdc
FLYT22 20W 01	12 - 20.5V (3° - 4)	19.5	5V / 340mA (6° - 5) 12V / 1.2mA (8° - 7)	90 - 130kHz	13μH	500Vdc

Each Flyback Transformer shall be the result of a common definition after technical agreement between both engineering teams

Typical Dimensions (mm, top view)

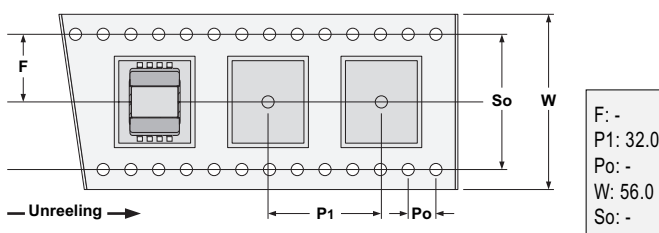


PCB Layout (suggested)



Packaging

Tape and Reel:
100 units per reel of diameter 330mm



Marking

