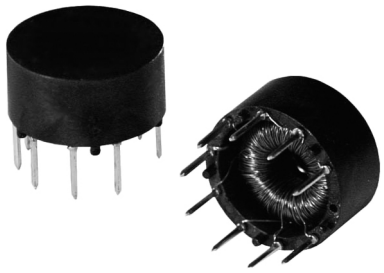
Through Hole Transformers Converter



FEATURES

- Designed especially for low-power solid state circuits
- Designed for mounting on printed circuit boards
- Miniature size for minimum space
- High conversion efficiency from DC input to filtered DC output
- Compliant to RoHS Directive 2011/65/EU

Pb-free

RoHS COMPLIANT

APPLICATIONS

Power supply for gas discharge display, battery-operated portable instruments, operational amplifier power supplies

MECHANICAL SPECIFICATIONS

Coil: Secured to bottom of case with epoxy

Terminals: 0.025" [0.635 mm] square, solder plated

ELECTRICAL SPECIFICATIONS

Transformer Power Rating: 3 W

Isolation, Primary-Secondary: 500 V, 60 Hz. Operating characteristics may be varied to suit specific applications by appropriate selection of circuit components

OPERATING TEMPERATURE RANGE

- 20 °C to + 80 °C. Intended for use in enclosed commercial and industrial applications

STANDARD ELECTRICAL SPECIFICATIONS

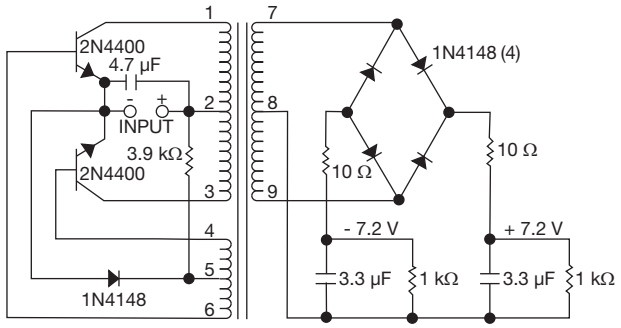
MODEL	INPUT (V_{DC})	OUTPUT	FREQUENCY REFERENCE (kHz)	CIRCUIT EFFECTIVE	TEST CIRCUIT	SCHEMATIC NUMBER
TC-10-01B	3.6	+ 7.2 ± 0.2 V_{DC} at 150 MW	7.5	50 %	1	1
		- 7.2 ± 0.2 V_{DC} at 150 MW				
TC-10-02B	5	200 ± 10 V_{DC} at 250 MW	11	50 %	2 (1)	4
TC-10-03B	5	200 ± 10 V_{DC} at 250 MW	11	60 %	2	2
		+ 15 ± 0.4 V_{DC} at 125 MW				
		- 15 ± 0.4 V_{DC} at 125 MW				
TC-10-04B	5	+ 15 ± 0.4 V_{DC} at 500 MW	8	75 %	3	1
		- 15 ± 0.4 V_{DC} at 500 MW				
TC-10-05B	5	+ 170 ± 5.1 V_{DC} at 850 MW	11	75 %	4	5
		+ 32 ± 1.0 V_{DC} at 510 MW				
TC-10-06B	5	+ 35 ± 1.0 V_{DC} at 610 MW	11	70 %	4 (1)	5 (1)
TC-10-07B	7.5	16.3 ± 0.4 V_{DC} at 330 MW	7	65 %	5	1
TC-10-08B	12	± 15 ± 0.4 V_{DC} at 1 W	7.5	72 %	3	1
TC-10-09B	12	160 ± 5 V_{DC} at 1.5 W	10	75 %	6	3
TC-10-10B	12	14.2 ± 0.7 V_{DC} at 3 W	10	70 %	5	1
TC-10-11B	12	+ 24 ± 0.5 V_{DC} at 2 W	10	80 %	5	1
TC-10-12B	24	170 ± 5.1 V_{DC} at 850 MW	11	70 %	4	5
		32 ± 1.0 V_{DC} at 510 MW				

Note

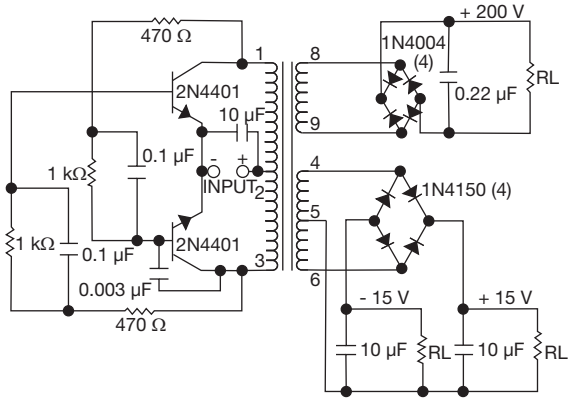
(1) Specifications relate to transformer when operated in applicable test circuit and at specified load power.

TEST CIRCUITS

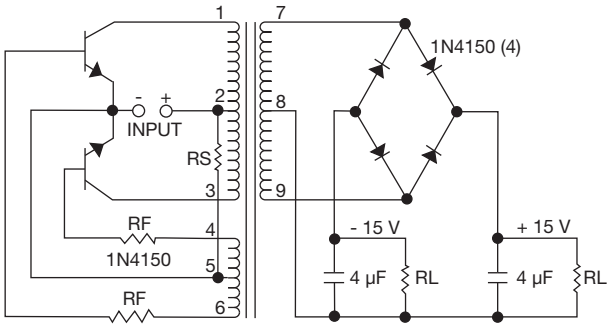
TEST CIRCUIT NUMBER 1



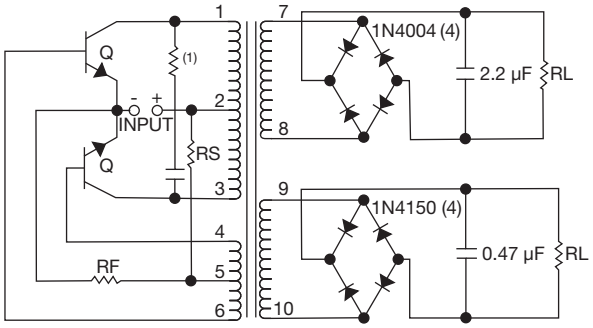
TEST CIRCUIT NUMBER 2



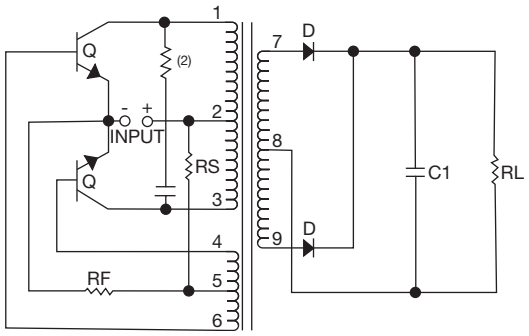
TEST CIRCUIT NUMBER 3



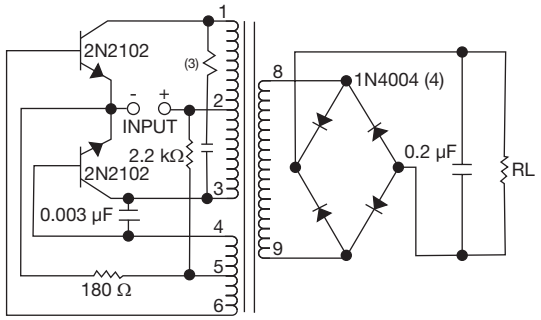
TEST CIRCUIT NUMBER 4



TEST CIRCUIT NUMBER 5



TEST CIRCUIT NUMBER 6



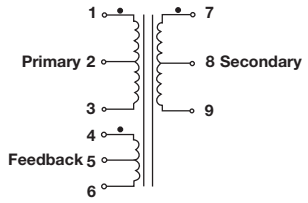
Notes

- Omit winding 4, 5, 6 and associated circuit to test TC-10-028.
- Omit winding 7, 8 and associated circuit to test TC-10-068.

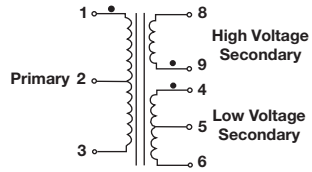
(1) RC network may be required to suppress spurious oscillations. R = 100 Ω, C = 0.001 µF.
(2) RC network may be required to suppress spurious oscillations.
(3) RC network may be required to suppress spurious oscillations. R = 10 Ω, C = 0.004 µF.

SCHEMATICS

1.



2.



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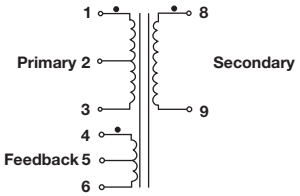

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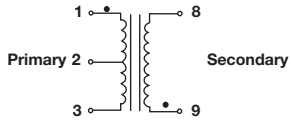

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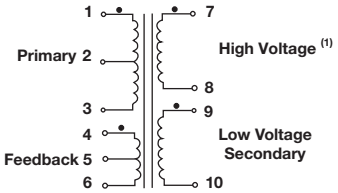
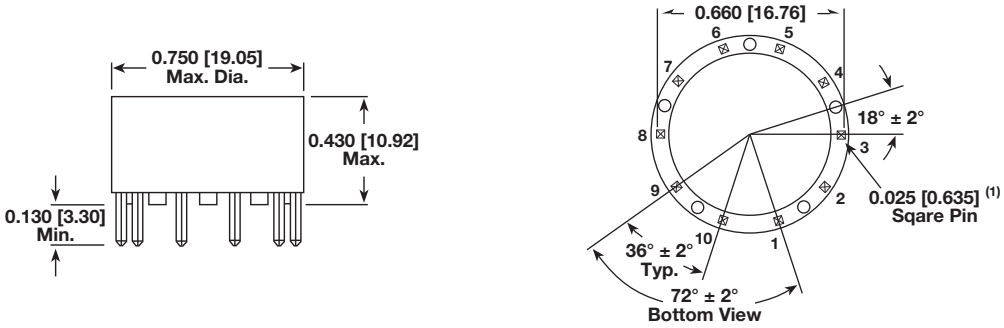


Note

(1) Omit high voltage winding for TC-10-06.

DIMENSIONS in inches [millimeters]



Note

(1) Shows typical pin spacing, pin 10 is omitted on all models except -05, -06, -12.

PART MARKING

- Model
- Date code

ORDERING INFORMATION

TC-10	-01B	EB	e2
MODEL	DASH NUMBER	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

T	C	1	0	E	B	0	1	B
MODEL				PACKAGE CODE		INDUCTANCE VALUE		

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