IXYS

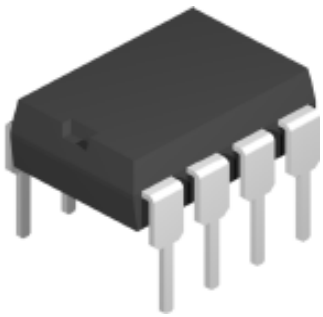
TX02-4400

Interface Transformer

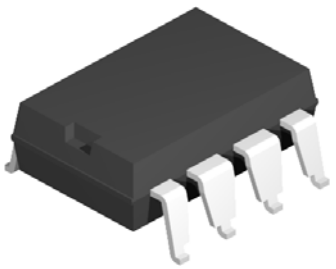
General Description

The TX-02-4400PI/JI is a dual winding interface transformer designed to be used with the IXYS IXBD4410/IXBD4411chip set. This ISOSMART chip set controls the gates of two Power MOSFETs or IGBTs connected in a half-bridge (phase-leg) configuration. This signal transformer transfers information between the two chips with greater than 2500V (RMS) isolation.

The TX02-4400PI is available in the standard 8-pin DIP package (TX02-4400PI) and the 8-pin DIP Gullwing package (TX02-4400JI)



TX02-4400PI



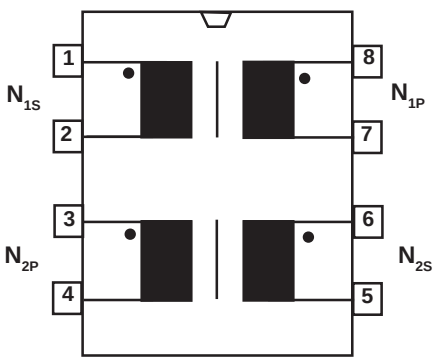
TX02-4400JI

Preliminary Data Sheet

Symbol	Test Conditions	Ratings	
$N_P:N_S$	Primary to Secondary Turns Ratio	3:1	
L_P	f = 100 kHz (Note 1)	0.97	µH
L_s	f = 100 kHz (Note 1)	0.1	µH
C_S	f = 100kHz; primary to secondary (Note 1)	0.5	pF
V_{ISOL}	Primary to secondary, 50/60 Hz, RMS, t = 1 minute	2500	V
$T_{OP, STG}$	Operating and storage Temperature	-55 ... +125	°C
T_L	1.6 mm (0.063 in) from case for 10 s	300	°C
Weight		2	g

Notes: 1. Nominal value

Pin Configuration



Features

- 2500V (RMS) Isolation
- Low interwinding capacitance
- Economical 8-PIN DIP packages
- Molding epoxy meets UL 94V-O flammability classification
- To be submitted for UL recognition

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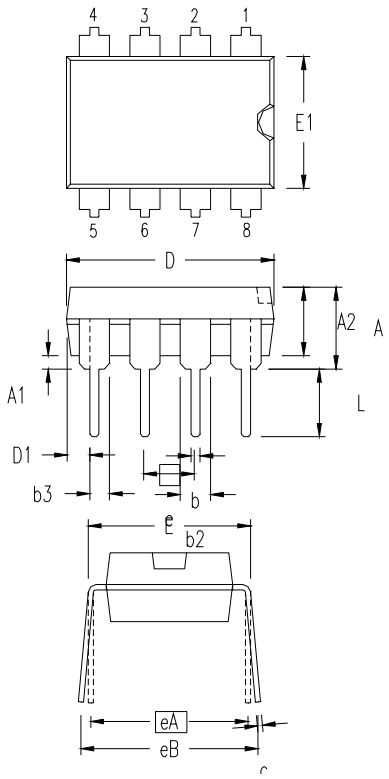
DS99016A(11/03)

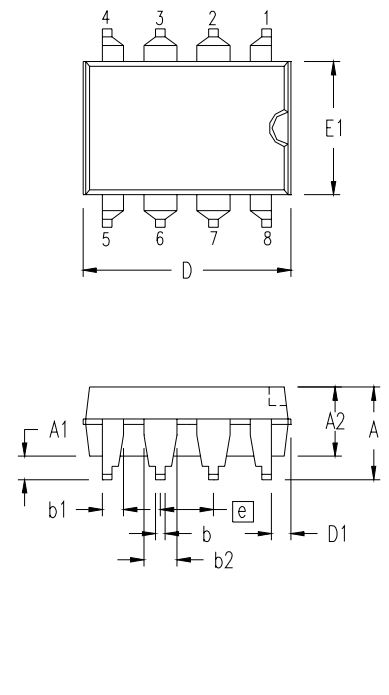
Package Outline: 8-PIN DIP (TX02-4400PI)



SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.140	.180	3.56	4.57
A1	.015	.040	0.38	1.02
A2	.125	.145	3.18	3.68
b	.015	.020	0.38	0.51
b2	.055	.065	1.40	1.65
b3	.035	.045	0.89	1.14
c	.009	.012	0.23	0.30
D	.355	.400	9.02	10.16
D1	.010	.040	0.25	1.02
E	.300	.325	7.62	8.26
E1	.240	.270	6.10	6.86
e	.100 BSC		2.54 BSC	
eA	.300 BSC		7.62 BSC	
eB	.300	.430	7.62	10.92
L	.120	.140	3.05	3.56

NOTE: THIS DRAWING MEETS ALL REQUIREMENT OF JEDEC OUTLINES MS-001 BA.

Package Outline: 8-PIN DIP-SM (TX02-4400JI)



SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.170	.180	4.32	4.57
A1	.040	.050	1.02	1.27
A2	.125	.135	3.18	3.43
b	.015	.021	0.38	0.53
b1	.037	.043	0.94	1.09
b2	.059	.065	1.50	1.65
c	.009	.012	0.23	0.30
D	.370	.400	9.40	10.16
D1	.030	.040	0.76	1.02
E	.290	.310	7.37	7.87
E1	.240	.260	6.10	6.60
E2	.365	.385	9.27	9.78
e	.100 BSC		2.54 BSC	