

REVISIONS			
REV.	DESCRIPTION	ECN NO.	DATE
01	FIRST RELEASE	N/A	06/23/14

When ordering, please add suffix "T" to the part number for tape & reel packaging (330mm reel).

**PAGE 4 & 5 ARE FOR INTERNAL ONLY**

TITLE

TRANSFORMER, 100BASE-T, SINGLE, SMD, 16 PIN

PART NUMBER	PART DESCRIPTION
824-00496F	RoHS compliant per EU Directive 2011/65/EU

**WARNING !**  
 ALL SHEETS OF THIS DOCUMENT ARE CONTROLLED DOCUMENTATION AND ARE NOT TO BE RELEASED OUTSIDE OF E&E OR ITS SUB-CONTRACTORS WITHOUT AUTHORIZATION.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCH/mm.

TOLERANCE ARE:

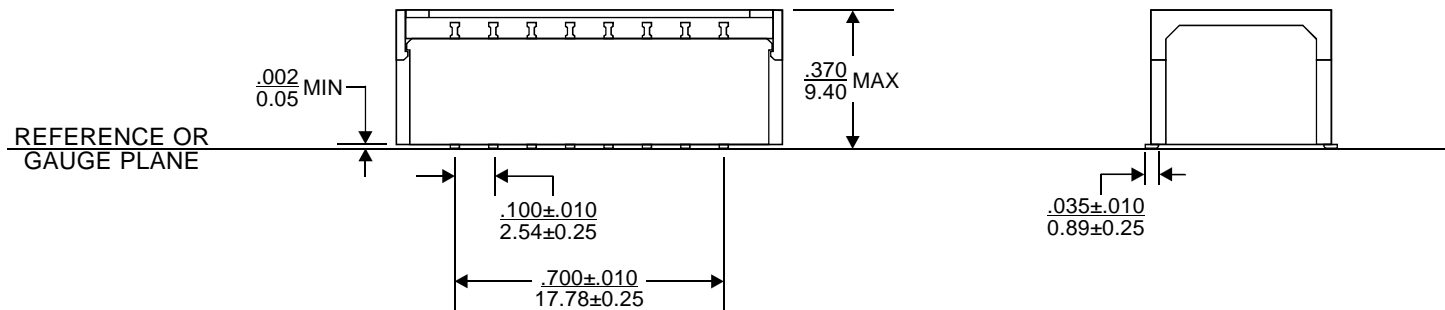
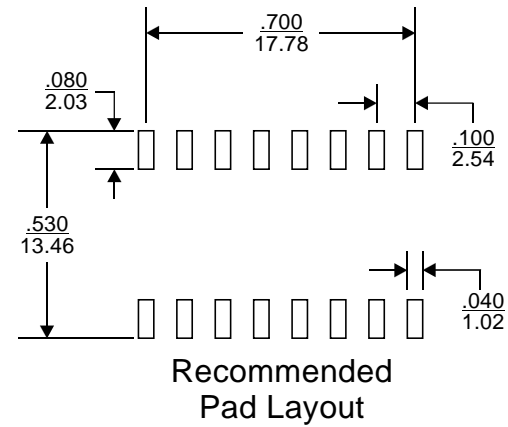
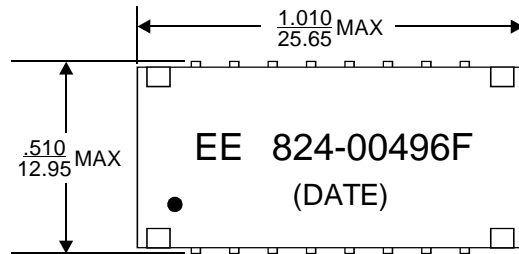
INCH	mm	ANGLE
.XXX ± .005	.XX ± .13	X.X ± 0.3
.XX ± .02	.X ± .5	X. ± 1

APPROVALS	DATE
DRAWN BY Y.L. YUNG	06/23/14
PROJ. ENG Y.L. YUNG	06/23/14
APPROVED BY D. YUNG	06/23/14
Q.A. D. LUO	06/23/14

 **E & E Magnetic Products Ltd.**

DRAWING NO./MODEL <b>824-00496F</b>	REV <b>01</b>
--	------------------

SCALE <b>DO NOT SCALE</b>	PAGE <b>1</b>	OF <b>5</b>
------------------------------	------------------	----------------



1. Dimensions are specified in  $\frac{\text{inches}}{\text{mm}}$  with higher precedence in inches.
2. Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0.25}$ .
3. Coplanarity:  $\frac{.004}{0.10}$  max.
4. "(DATE)" includes at least the manufacturing date code (in YYWW format) plus two character country code.

## MECHANICAL OUTLINE



E & E Magnetic Products Ltd.

DRAWING NO./MODEL

824-00496F

REV

01

SCALE

DO NOT SCALE

PAGE

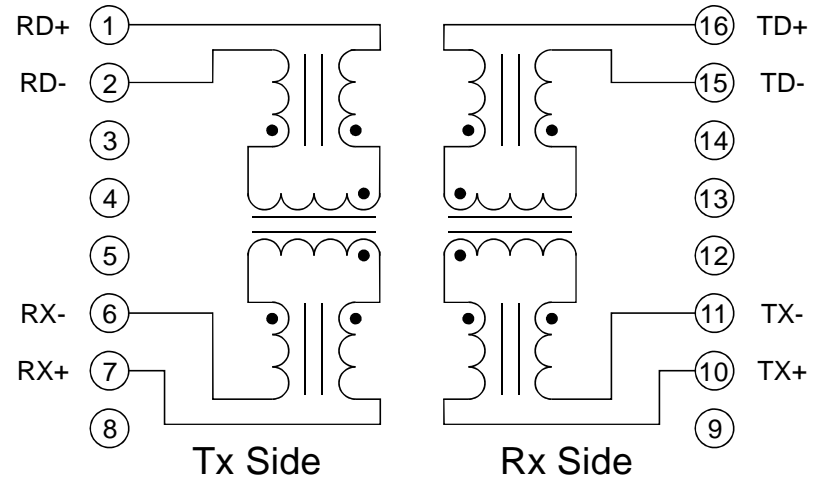
2

OF

5

CHIP SIDE  
(Primary)

LINE SIDE  
(Secondary)



SCHEMATIC

**ELECTRICAL SPECIFICATION @25°C:**

PARAMETERS	UNIT	TX Side	RX Side
Turn Ratio (Primary):(Secondary)	-	1:1 ± 2%	1:1 ± 2%
Polarity (Primary):(Secondary)	-	Per Schematic	Per Schematic
Inductance, Ls(Primary) @100KHz, 0.1Vrms, 8mADC	uH	350 Min	350 Min
Insertion Loss @1-100MHz	dB	1.1 Max	1.1 Max
Return Loss @1-30MHz (100Ω)	dB	18 Min	18 Min
Return Loss @40MHz (100Ω)	dB	16 Min	16 Min
Return Loss @50MHz (100Ω)	dB	14 Min	14 Min
Return Loss @60-80MHz (100Ω)	dB	12 Min	12 Min
DM-CMRR @30MHz	dB	42 Min	42 Min
DM-CMRR @60MHz	dB	37 Min	37 Min
DM-CMRR @100MHz	dB	35 Min	35 Min
Crosstalk @30MHz (TX<=>RX)	dB	40 Typ	
Crosstalk @60MHz (TX<=>RX)	dB	40 Typ	
Crosstalk @100MHz (TX<=>RX)	dB	35 Typ	
Hipot (Primary):(Secondary)	Vrms	1500 Min	1500 Min

5. Operating temperature : 0°C to +70°C.



**E & E Magnetic Products Ltd.**

DRAWING NO./MODEL

**824-00496F**

REV

**01**

SCALE

**DO NOT SCALE**

PAGE

**3**

OF

**5**