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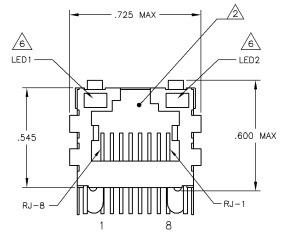
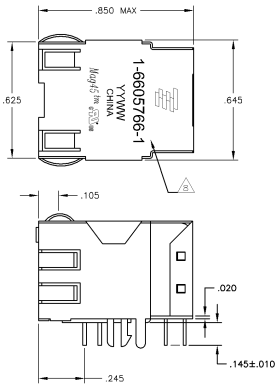
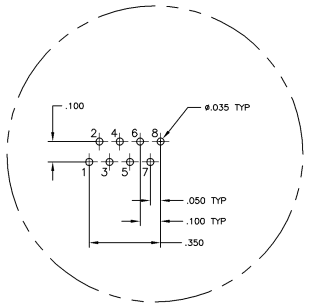
| UOC | SHT |
|---|---|
| AA | 22 |

| REVISIONS | | | | | |
|---|---|---|---|---|---|
| P | LTR | DESCRIPTION | DATE | DWN | APVD |
| | B | REV PER ECO-08-017728 | 09JUL2008 | QL | TX |

MECHANICAL:




Pin Designations

1. MATERIALS:
-HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0
-SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 30µINCH MIN SEMI-BRIGHT NICKEL, SOLDER TABS POST DIPPED WITH 100µINCH MIN SAC SOLDER.
-MOD JACK CONTACTS - 0.0157" x 0.018" PHOSPHOR BRONZE, 50µINCH MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 50µINCH MIN HARD GOLD FINISH PLATE.
SOLDERTAILS WITH 100µINCH MIN MATTE TIN AND/OR SAC SOLDER DIP.
-LIGHT EMITTING DIODE(LED) - DIFFUSED EPOXY LENS, 0.20" x .020" CARBON STEEL WIREFRAME LEADS PRE-PLATED WITH 80µINCH SILVER OVER 40µINCH NICKEL UNDERPLATE OVER 40µINCH COPPER UNDERPLATE, POST-PLATED WITH 100µINCH MIN MATTE TIN AND/OR SAC SOLDER DIP OR PURE TIN SOLDER DIP.

2. RJ45 JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68, SUB PART F.

3. MAGNETICS:
-IMPEDANCE: 100 OHMS
-TURNS RATIO (CHIP:CABLE): TX = 1:1, RX = 1:1
-OPEN CIRCUIT INDUCTANCE (OCL): 350µH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, TX AND RX
-PERFORMANCE @ 25°C:
INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 100MHz
RETURN LOSS (RL): 18dB MIN FROM 0.5MHZ TO 30MHz
18-20LOG(f/30)dB MIN FROM 30 1MHz TO 60MHz
12dB MIN FROM 60 1MHz TO 80MHz
CROSSTALK ATTENUATION: 35dB MIN FROM 0.5MHz TO 40MHz
33-20*LOG(f/50)dB MIN FROM 40 1MHz TO 100MHz
COMMON MODE REJECTION RATIO (CMRR): 30dB MIN FROM 0.5MHz TO 100MHz
-ISOLATION VOLTAGE: COMPLIES WITH IEEE802.3 2002, PARA 23.5.1.1, ITEM b.

4. C1 IS AN OPTIONAL. IF NOT CAPACITOR, TRACE IS CONTINUOUS.

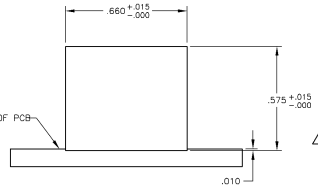
5. OPERATING TEMPERATURE: FROM 0° TO +70°C.

6. THE 250 OHM LED RESISTORS ARE OPTIONAL, PLEASE SEE CHART FOR PRESENCE OR ABSENCE OF LED RESISTORS. IF THE LED WITHOUT 250 OHM RESISTORS, LED IS DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA.
LED COLOR: DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP. @ IF=20mA
FORWARD VOLTAGE (VF): GREEN 2.2V TYP. @ IF=20mA
DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. @ IF=20mA
FORWARD VOLTAGE (VF): YELLOW 2.1V TYP. @ IF=20mA
DOMINANT WAVELENGTH (λD): ORANGE 605 nm TYP. @ IF=20mA
FORWARD VOLTAGE (VF): ORANGE 2.05V TYP. @ IF=20mA
IF THE LED WITH 250 OHM RESISTORS, LED IS DRIVEN WITH 5V VOLTAGE AND THE MAX OPERATING CURRENT IS 20mA.
LED COLOR: DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP. @ VF=5V
FORWARD CURRENT (IF): GREEN 12 mA TYP. @ VF=5V
DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. @ VF=5V
FORWARD CURRENT (IF): YELLOW 13 mA TYP. @ VF=5V

7. INDICATED CONNECTIONS ARE FOR NIC CONFIRMATION. THE MAGNETICS ARE SYMMETRICAL TO SUPPORT AUTO-MDI/MDIX.

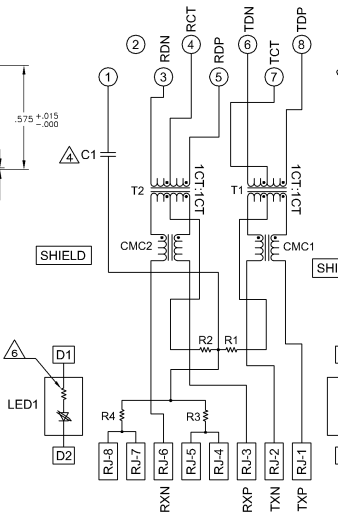
8. TYCO ELECTRONICS LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

9. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS. PEAK WAVE SOLDERING TEMPERATURE IS 265°C, 10SECONDS MAX.

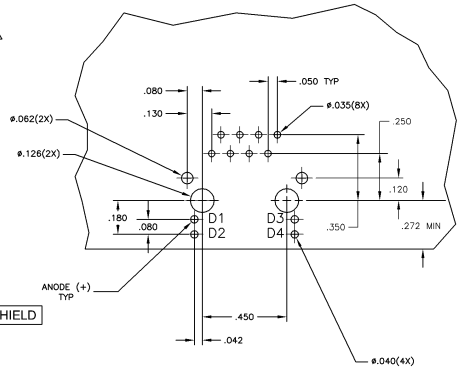



Suggested Panel Cutout

726P7 SERIES MAGNETIC CIRCUIT 3 7




C1 = 1000 pF, 2kV DECOUPLING CAPACITOR
R1-R4 = 75 OHMS, 1/16W, 5% RESISTORS




Suggested PCB Layout
(COMPONENT SIDE)

| LED RESISTOR 6 | DECOUPLING CAPACITOR 4 6 | LED1 6 | LED2 6 | PART NUMBER |
|---|---|---|---|---|
| NO | YES | YELLOW | GREEN | 5-6605766-9 |
| YES | YES | GREEN | GREEN | 5-6605766-1 |
| YES | NO | GREEN | GREEN | 1-6605766-1 |

| | | | |
|---|---|---|---|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | DRAWN: L. VARELA — DOCS | Tyco Electronics Corporation Changqing, China | |
| DIMENSIONS: INCHES | TOLERANCES, UNLESS OTHERWISE SPECIFIED: 0 PLACE ± - 1 PLACE ± - 2 PLACES ± .XX 3 PLACES ± .XXX ANGLES ± - | CHK: A. FAROLE | NAME: 1X1 MAG45(TM), 7N2P7 SCHEMATIC, 726 SERIES CIRCUIT, WITH OPTIONAL DECOUPLING CAPACITOR, WITH LEDS |
| | | PRODUCT SPEC: 108-2100 | |
| | | APPLICATION SPEC: — | SIZE: A1 DWG NO: 00779-6605766 RESTRICTED TO: — |
| MATERIAL: 1 | FINISH: 1 | WEIGHT: — | |
| | | CUSTOMER DRAWING | SCALE: NTS SHEET: 1 OF 1 REV: B |