



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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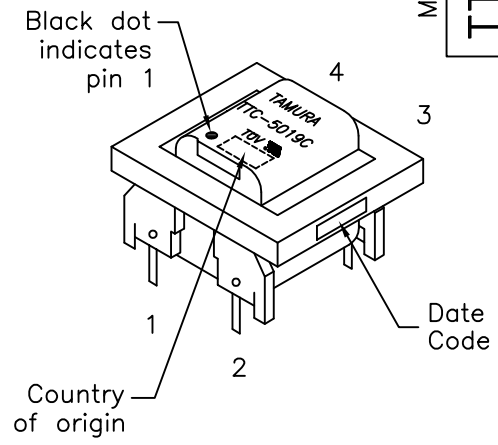


REV. Status

|  |
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| REVISION -<br>11/08/01 MP                                      |
| REVISION A<br>ADDED<br>A.11-A.13.<br>03/20/02 MP               |
| REVISION B<br>ADDED PAGE 2<br>RELIABILITY TEST<br>04/23/02 MP  |
| REVISION C<br>ADDED<br>BAPT & TUV<br>TO MARKING<br>05/09/02 MP |
| REVISION D<br>DELETED BAPT<br>05/07/05 MP                      |

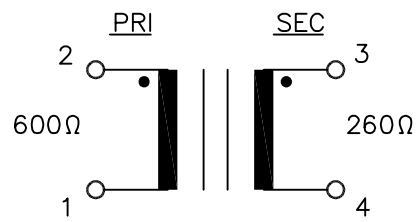
TELECOMMUNICATION MODEM COUPLING TRANSFORMER FOR WET APPLICATION

- A. Electrical Specifications (@ 25°C)
- Pri Source Impedance; 600Ω
  - Sec Load Impedance; 260Ω
  - Insertion Loss; 4.0dB MAX @ 1KHz, 0dBm, DC 50mA
  - Frequency Response (relative to 1KHz) ±2.5dB @ 200Hz to 4KHz, 0dBm, DC 50mA
  - Longitudinal Balance; 60dB MIN @ 60Hz to 1KHz 40dB MIN @ 1KHz to 4KHz (Per FCC Part 68.310 with 4 grounded)
  - Return Loss; 8dB MIN @ 200Hz to 4KHz, 0dBm
  - DC Resistance; (1-2)= 170Ω ±10% (3-4)= 170Ω ±10%
  - Turns Ratio; (1-2):(4-3) = 1:1.00±2%
  - Dielectric Strength; 1875Vrms 1 second @ Pri to Sec
  - Total Harmonic Distortion: -60dB TYP @ 600Hz, -10dBm

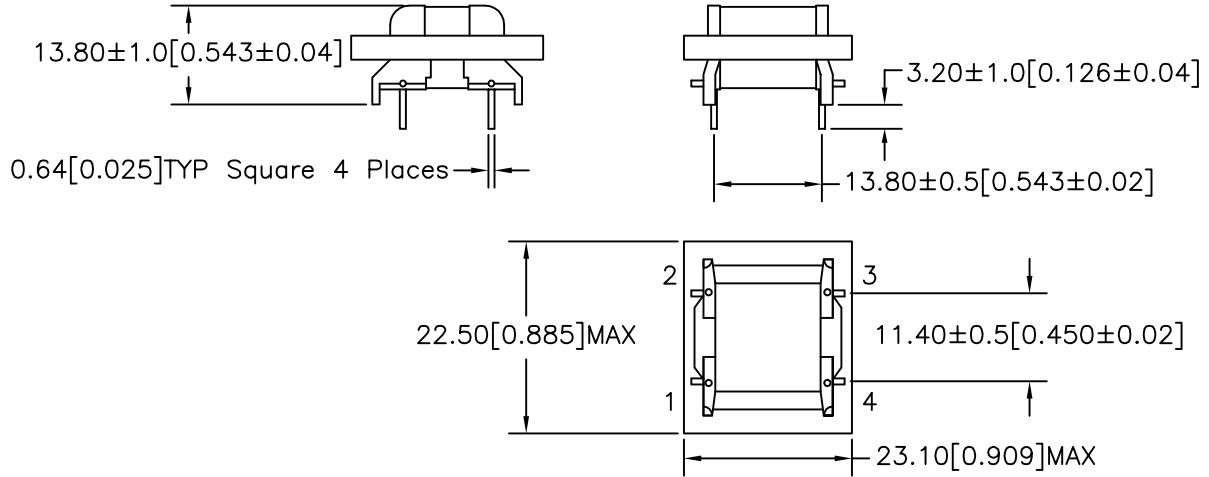


MODEL NUMBER  
**TTC-5019**

- B. Operating Temperature: -40°C to +85°C  
 C. Storage temperature; -40°C to +85°C  
 D. Soldering temperature; 260°C MAX for 10 sec MAX  
 E. Reliability Test; Refer to page 2  
 F. Marking; TTC-5019C, TAMURA, date code and country of origin "C" designates UL approved family classification.  
 G. Safety; UL1950 3rd Edition, UL60950, EN60950  
 H. Schematic Diagram;



I. Mechanical Specifications;



PREPARED BY:  
K. BRENNAN

ENGINEER:  
M. PITCHAI

QUALITY CONTROL:  
T. CLEM

APPROVED:  
Y. SEKIGUCHI

|  |          |  |  |
|--|----------|--|--|
| DRAWING CONTROL NO.<br>P-A1-12503<br>ACAD\TTC\A1125031.DWG   | REV<br>D | MODEL DESCRIPTION<br>MODEM COUPLING TRANSFORMER  | MODEL SPECIFICATION<br><b>TTC-5019</b> |
| CONTENTS OF THIS DRAWING ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE  |          | <b>TAMURA CORPORATION OF AMERICA</b><br>43352 BUSINESS PARK DRIVE, TEMECULA, CA. 92590-6624<br>(951) 699-1270 FAX 9516769482 | DIM: mm(In) SCL: 1/1 SH: 1 OF 2        |
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REV. Status

## E. Reliability Test;

REVISION  
DATE/ENGREVISION A  
ADDED  
A.11-A.13.  
03/20/02 MPREVISION B  
ADDED  
PAGE 2  
RELIABILITY TEST  
04/23/02 MPREVISION C  
ADDED  
BABT & TUV  
TO MARKING  
05/09/02 MPREVISION D  
DELETED BABT  
05/07/05 MP

| No. | Item  | Condition   | Specifications  |
|-----|---|---|---|
| 1   | Solderability                                 | Temperature: 230° ± 5°C<br>Solder time: 3 ± 0.5 seconds<br>Solder: H60A or H63A<br>Flux: 75% Methanol and<br>25% Rosin                  | After that the sample shall be covered by solder uniformly at more than 90% of circumference.   |
| 2   | Resistance to Soldering heat                  | Temperature: 260° ± 5°C<br>Solder time: 10 ± 1 seconds<br>Solder: H60A or H63A<br>Flux: 75% Methanol and<br>25% Rosin                   | Sample shall not show any unusual appearance.   |
| 3   | Resistance to soldering heat (hand soldering) | Temperature: 350° ± 10°C<br>Solder time: 3 ± 1 seconds  | Sample shall not show any unusual appearance.   |
| 4   | Thermal cycle test                            | JIS C 0025 10 cycles<br>Temperature<br>-10°C 30 min<br>25°C 5 min<br>70°C 30 min  | After that sample shall be replaced in normal ambient for 60 min., it shall not show any unusual appearance and should meet the requirement of dielectric strength and insulation resistance no less than 10M $\bar{U}$ |
| 5   | Heat test                                     | JIS C 0021<br>Temperature: 85°C<br>Time: 96 hours   | After that sample shall be replaced in normal ambient for 60 min., it shall not show any unusual appearance and should meet the requirement of dielectric strength and insulation resistance no less than 10M $\bar{U}$ |
| 6   | Cold test                                     | JIS C 0020<br>Temperature: -25°C<br>Time: 96 hours  | After that sample shall be replaced in normal ambient for 60 min., it shall not show any unusual appearance and should meet the requirement of dielectric strength and insulation resistance no less than 10M $\bar{U}$ |
| 7   | Humidity Test                                 | JIS C 0022<br>Temperature: 40°C<br>Humidity: 90~95%<br>Time: 96 hours   | After that sample shall be replaced in normal ambient for 60 min., it shall not show any unusual appearance and should meet the requirement of dielectric strength and insulation resistance no less than 10M $\bar{U}$ |
| 8   | Vibration test                                | JIS C 0040<br>Frequency: 10~55Hz<br>Amplitude (total excursion)<br>1.5mm<br>Transverse time: 5 min.<br>Direction Time: XYZ each 50 min. | After that sample shall be replaced in normal ambient for 60 min., it shall not show any unusual appearance and should meet the requirement of dielectric strength and insulation resistance no less than 10M $\bar{U}$ |
| 9   | Terminal strength                             | JIS C 0051.2.5<br>5N 10 seconds   | No breakage of magnet wire, etc.  |

PREPARED BY:  
K. BRENNANENGINEER:  
M. PITCHAIQUALITY CONTROL:  
T. CLEMAPPROVED:  
Y. SEKIGUCHIDWG CONTROL NO.  
P-A1-12503  
ACAD\TTC\A1125032.DWGREV  
DMODEM COUPLING  
TRANSFORMER

TTC-5019

MODEL SPECIFICATION

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PRIOR NOTICE**TAMURA CORPORATION OF AMERICA**  
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(951) 699-1270 FAX 9516769482

DIM: N/A SCL: N/A SH: 2 OF 2

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