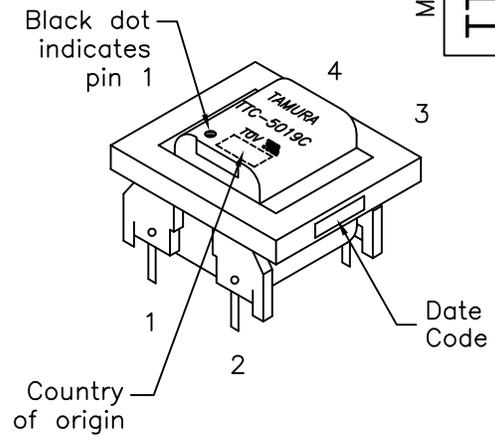


REV. Status

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

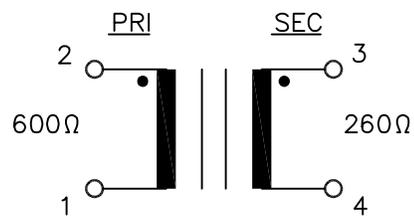
TELECOMMUNICATION MODEM COUPLING TRANSFORMER FOR WET APPLICATION

- 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

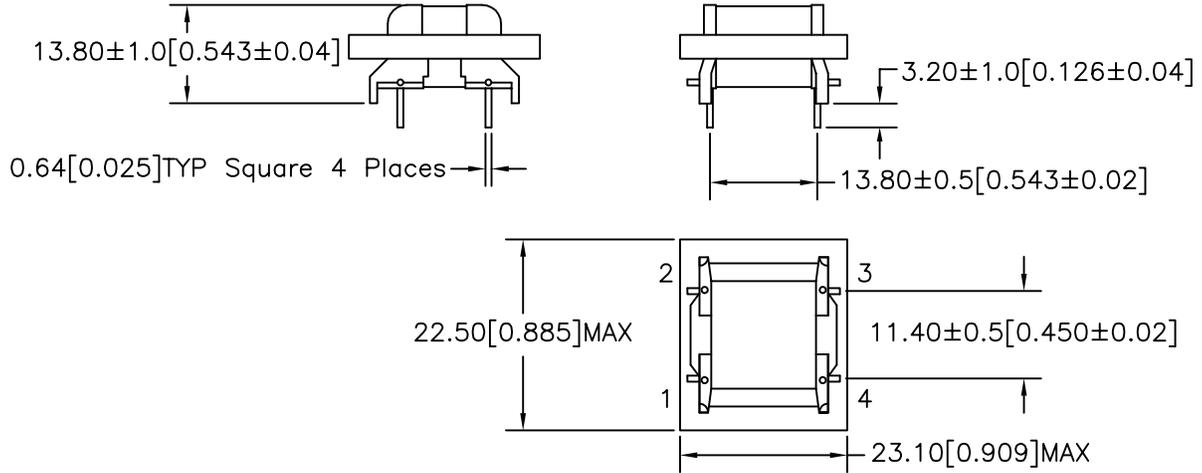


MODEL NUMBER
TTC-5019

- 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. P-A1-12503 ACAD\TTC\A1125031.DWG | REV D | MODEL DESCRIPTION MODEM COUPLING TRANSFORMER | MODEL SPECIFICATION TTC-5019 |
| CONTENTS OF THIS DRAWING ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE | | TAMURA CORPORATION OF AMERICA 43352 BUSINESS PARK DRIVE, TEMECULA, CA. 92590-6624 (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: $230^{\circ} \pm 5^{\circ}\text{C}$ Solder time: 3 ± 0.5 seconds Solder: H60A or H63A Flux: 75% Methanol and 25% Rosin | After that the sample shall be covered by solder uniformly at more than 90% of circumference. |
| 2 | Resistance to Soldering heat | Temperature: $260^{\circ} \pm 5^{\circ}\text{C}$ Solder time: 10 ± 1 seconds Solder: H60A or H63A Flux: 75% Methanol and 25% Rosin | Sample shall not show any unusual appearance. |
| 3 | Resistance to soldering heat (hand soldering) | Temperature: $350^{\circ} \pm 10^{\circ}\text{C}$ Solder time: 3 ± 1 seconds | Sample shall not show any unusual appearance. |
| 4 | Thermal cycle test | JIS C 0025 10 cycles Temperature -10°C 30 min 25°C 5 min 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 $10\text{M}\Omega$ |
| 5 | Heat test | JIS C 0021 Temperature: 85°C 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 $10\text{M}\Omega$ |
| 6 | Cold test | JIS C 0020 Temperature: -25°C 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 $10\text{M}\Omega$ |
| 7 | Humidity Test | JIS C 0022 Temperature: 40°C Humidity: 90~95% 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 $10\text{M}\Omega$ |
| 8 | Vibration test | JIS C 0040 Frequency: 10~55Hz Amplitude (total excursion) 1.5mm Transverse time: 5 min. 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 $10\text{M}\Omega$ |
| 9 | Terminal strength | JIS C 0051.2.5 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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43352 BUSINESS PARK DRIVE, TEMECULA, CA. 92590-6624
(951) 699-1270 FAX 9516769482

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

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