

Voice/Modem Line Transformers

V.29, V.32, V.34, V.90, & V.92 Applications

- Highest Density Package Available
- Approved to UL1950 3rd Edition
- Approved to UL60950 & EN60950
- Surface Mount
- Vacuum Encapsulated
- Pri:Sec Hi-Pot=1500Vrms and Higher
- Surge Voltage



Electrical Specification @ Ta=25°C

Part #	Impedance PRI:SEC (Ω)	DC Unbalance (mA)	Insertion Loss (dB MAX.)	Total Harmonic Distortion (dB Typ.)	Long. Balance (dB MIN.)	Return Loss @ 1KHz (dB Typ)
TTC-5023¹	600:600	0	2.0	-79	80	16
TTC-5024	600:330	0	3.0	-85	80	27
TTC-5025	600:430	0	3.5	-79	80	20
TTC-5032	600:470	0	2.5	-79	80	27
TTC-5035	600:346	0	3.0	-84	80	27
TTC-5036	600:287	0	4.0	-90	80	27
TTC-5037	600:560	0	2.0	-77	80	23

¹ 3000 Vrms Pri:Sec Hi-Pot

High Impedance Applications

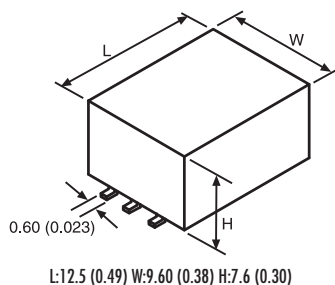
Part #	Impedance PRI:SEC (Ω)	DC Unbalance (mA)	Inductance Lp @ 200Hz 10mVrms (H MIN)	Shunt Loss Rp @ 200Hz 10mVrms (Ω MIN)
TTC-5027	30k:30k	0	30.0	110
TTC-5033	10k:10k	0	6.5	22
TTC-5034	20k:20k	0	18.0	60

Package Information

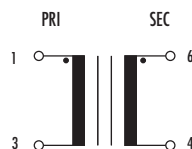
QTY/Tray	Tape/Reel
50	400

Mechanical Dimensions mm (inches)

All dimensions are typical, please contact Tamura for tolerances and suggested layout information.



Schematics



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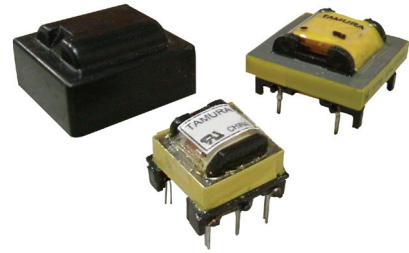
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Voice/Modem Line Transformers

V.29, V.32 & V.34 Applications

- Approved to UL1950 3rd Edition
- Approved to UL60950 & EN60950
- Hi-Pot 1500Vrms Pri:Sec



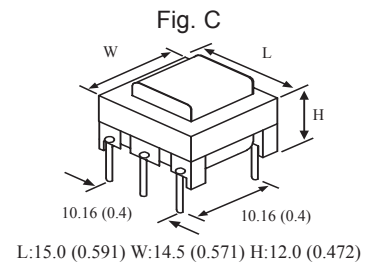
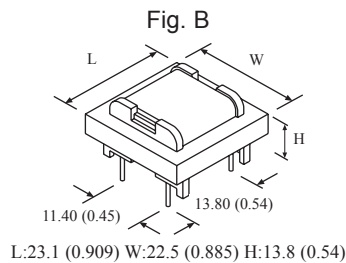
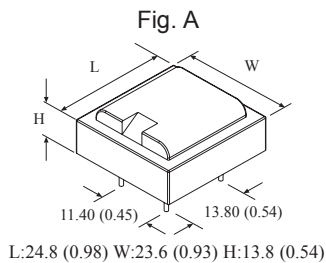
Electrical Specification @ Ta=25°C

Part #	Impedance PRI: SEC (Ω)	DC Unbalance (mA)	Insertion Loss (dB MAX)	Total Harmonic Distortion (dB Typ)	Long. Balance (dB MIN)	Return Loss @ 1 KHz (dB Typ)	Mounting	Package Fig.	Schematic Fig.
TTC-5019	600:260	50	4.0	-60	60	-	THD	B	1
TTC-5010 ¹	600:301	65	3.75	-50	60	-	THD (CASE)	A	2
TTC-5020	600:301	65	3.75	-50	60	-	THD	B	2
TTC-264M ¹	600:470	100	2.5	-50	60	-	THD (CASE)	A	1
TTC-5028	600:470	100	2.5	-50	60	-	THD	B	1

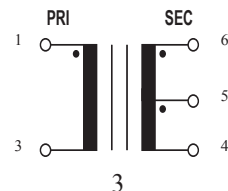
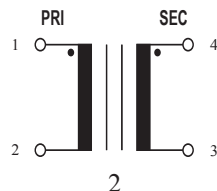
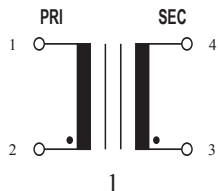
¹ 3000 Vrms Pri:Sec Hi-Pot

Mechanical Dimensions mm (inches)

All dimensions are typical, please contact Tamura for tolerances and suggested layout information.



Schematics



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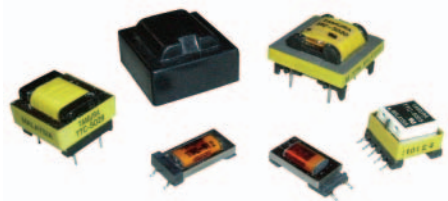
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V.90, V.92 Applications

- Optimized for High Speed Modem Applications
- Frequency Range 300Hz to 4kHz
- 1500 Vrms Hi-Pot (Pri:Sec)
- Approved to UL1950 3rd Edition
- PCMCIA Packages
- Approved to UL60950 & EN60950

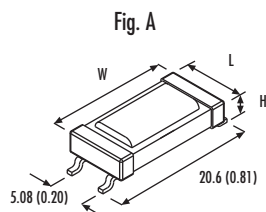
Electrical Specification @ Ta=25°C

Part #	Impedance PRI:SEC (Ω)	DC Unbalance (mA)	Insertion Loss (dB MAX.)	Total Harmonic Distortion (dB Typ.)	Long. Balance (dB MIN.)	Return Loss @ 1 KHz (dB Typ)	Mounting	Package Fig.	Schematic Fig.
TTC-511	600:287	0	3.85	-82	60	35	SMD	A	1
TTC-5021	600:287	0	3.85	-82	60	33	SMD	F	1
TTC-5000	600:301	0	3.25	-92	60	26	THD	D	4
TTC-5001¹	600:301	0	3.25	-92	60	26	THD (CASE)	C	4
TTC-5013	600:301	65	4.00	-89	60	15	THD	D	4
TTC-5003	600:320	0	3.20	-92	60	29	SMD	I	6
TTC-5014	600:348	0	3.25	-88	60	30	THD	H	5
TTC-5006¹	600:374	0	2.5	-90	60	29	THD (CASE)	C	4
TTC-5008	600:374	0	2.5	-90	60	29	THD	D	4
TTC-5022	600:374	0	2.3	-89	60	30	THD	E	1
TTC-5004	600:392	0	2.2	-89	60	33	SMD	I	6
TTC-5015	600:442	0	2.0	-85	60	35	THD	H	5
TTC-5026	600:490	0	1.5	-80	60	28	SMD	I	3
TTC-512	600:510	0	1.50	-75	60	30	SMD	B	2
TTC-5005	600:525	0	1.6	-86	60	27	SMD	I	6
TTC-5007¹	600:530	0	1.0	-83	60	32	THD (CASE)	C	4
TTC-5009	600:530	0	1.0	-83	60	32	THD	D	4
TTC-5016	600:560	0	1.5	-82	60	23	THD	H	5
TTC-5012¹	600:600	0	1.0	-76	60	31	THD (CASE)	C	4
TTC-5017	600:600	0	1.5	-82	60	23	THD	H	4
TTC-5018	600:600	0	1.0	-76	60	31	THD	D	4
TTC-5029	600:600	0	1.0	-88	60	25	THD	G	5

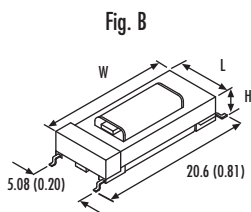
¹ 3000 Vrms Pri:Sec Hi-Pot

Mechanical Dimensions mm (inches)

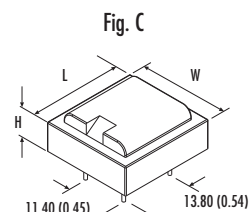
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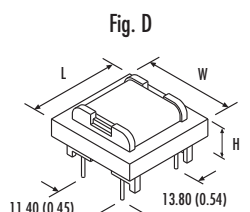
L: 9.9 (0.39) W: 17.8 (0.70) H: 4.9 (0.19)



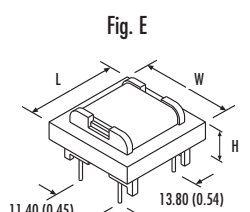
L: 9.9 (0.39) W: 16.9 (0.66) H: 4.9 (0.19)



L: 24.8 (0.98) W: 23.6 (0.93) H: 13.80 (0.54)



L: 23.1 (0.9) W: 22.5 (0.89) H: 13.8 (0.54)



L: 24.0 (0.94) W: 26.0 (1.02) H: 13.8 (0.54)

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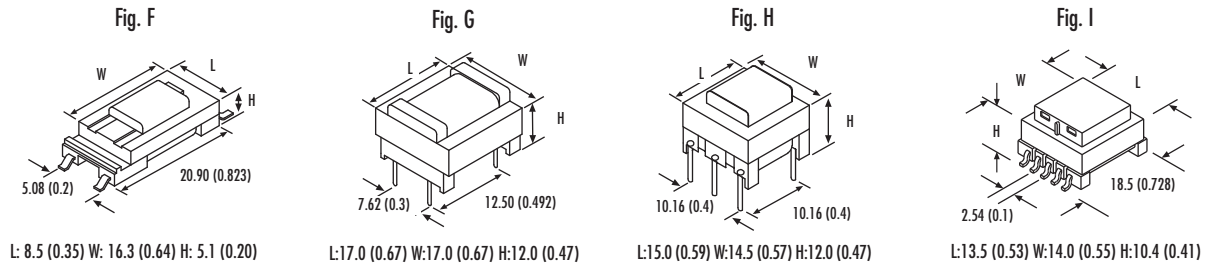
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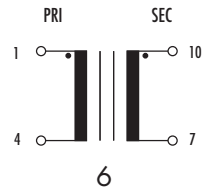
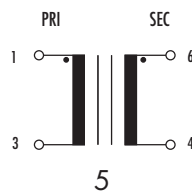
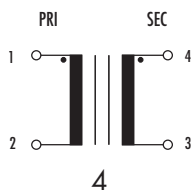
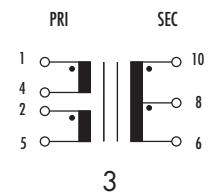
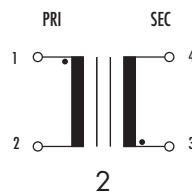
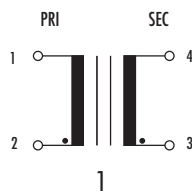
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