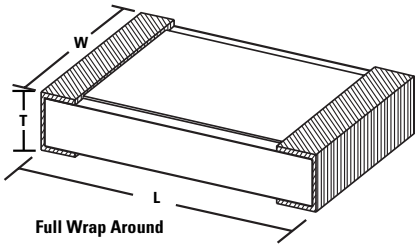
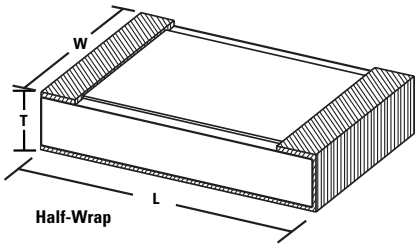
MICROWAVE TERMINATIONS

WAMT SERIES

WAMT Series offers special resistor patterning to enhance RF performance. Half-Wrap or Full-Wrap Terminations offer maximum flexibility in microwave applications. These resistors are constructed using our proven proprietary thin film processes.



Full Wrap Around



Half-Wrap

MECHANICAL DATA

SERIES	L		W		T	TOLERANCE
WAMT - 1	0.040"	x	0.020"	x	0.010"	(±0.003")
WAMT - 2	0.035"	x	0.035"	x	0.010"	(±0.003")
WAMT - 3	0.075"	x	0.050"	x	0.010"	(±0.003")
WAMT - 4	0.050"	x	0.050"	x	0.010"	(±0.003")
WAMT - 5	0.126"	x	0.063"	x	0.010"	(±0.003")
WAMT - 6	0.100"	x	0.050"	x	0.010"	(±0.003")
WAMT - 7	0.020"	x	0.020"	x	0.010"	(±0.003")
WAMT - 8	0.055"	x	0.025"	x	0.010"	(±0.003")
WAMT - 21	0.020"	x	0.010"	x	0.010"	(±0.003")

SUBSTRATE	99.6% ALUMINA, ALUMINUM NITRIDE
RESISTOR	NICHROME OR TANTALUM NITRIDE
BOND PADS AND WRAPAROUND TERMINATIONS	GOLD WITH NICKEL BARRIER STANDARD. OPTIONAL WITH SOLDER; OR HALF-WRAP TERMINATION

ELECTRICAL DATA

SERIES	OHMIC VALUE	POWER RATING @ 70°C
WAMT - 1	6Ω – 1KΩ	125mW
WAMT - 2	25Ω – 1KΩ	250mW
WAMT - 3	25Ω – 1KΩ	250mW
WAMT - 4	25Ω – 1KΩ	250mW
WAMT - 5	25Ω – 1KΩ	500mW
WAMT - 6	25Ω – 1KΩ	250mW
WAMT - 7	25Ω – 1KΩ	125mW
WAMT - 8	25Ω – 1KΩ	250mW
WAMT - 21	2Ω – 400Ω	50mW

ABSOLUTE TOLERANCE	1%, 2%, 5%, 10%
T.C.R.	±25ppm/°C STANDARD (NiCr) ±150ppm/°C STANDARD (TaN); TO ±50ppm/°C AVAILABLE CONSULT SALES FOR OTHER VALUES

SERIES DATA

CURRENT NOISE	101Ω TO 250KΩ: -40dB; ≤ 100Ω, ≥ 250KΩ: -30dB
INSULATION RESISTANCE	10^{12}Ω MIN.
OPERATING VOLTAGE	100 V MAX.
SHORT TERM OVERLOAD	5X RATED POWER, 25°C, 5 SEC., ±0.25% MAX. ΔR/R: ±0.1% MSI TYPICAL
HIGH TEMP EXPOSURE	150°C, 100 HRS., ±0.25% MAX. ΔR/R: ±0.03% MSI TYPICAL
THERMAL SHOCK	MIL-STD 202, METHOD 107F, ±0.25% MAX. ΔR/R: ±0.1% MSI TYPICAL
MOISTURE RESISTANCE	MIL-STD 202, METHOD 106, ±0.5% MAX. ΔR/R: ±0.1% MSI TYPICAL
STABILITY	1000 HRS., 70°C, 100% POWER, ±0.5% MAX. ΔR/R: ±0.1% MSI TYPICAL
OPERATING TEMP RANGE	-55°C TO +150°C
FREQUENCY	DC THROUGH 20 GHz
STRAY DISTRIBUTED CAPACITANCE	
ALUMINA	0.06pF

PART NUMBER DESIGNATION

WAMTX	X	X	—	XXXXX	X	—	X
SERIES	SUBSTRATE	RESISTIVE FILM		OHMIC VALUE	TOLERANCE		OPTION
1, 2 3, 4 5, 6 7, 8 21	A = Alumina N = Aluminum Nitride	N = Nichrome T = Tantalum Nitride		5-Digit Number: 1st 4 Digits Are Significant With "R" As Decimal Point When Required. 5th Digit Represents Number of Zeros.	F = 1% G = 2% J = 5% K = 10%		A = ±50ppm/°C F = ±100ppm/°C HWU = Half-Wrap Untinned T = With SN62 Solder ** T3 = Leadfree Solder TR = Tape and Reel *** U = Untinned* HWT = Half-Wrap Tinned. HWT3 = Half-Wrap Leadfree Tinned

Consult Sales for power capabilities on Aluminum Nitride.

* For Conductive Epoxy Mount.
** For Solder Mount.
*** Consult Sales for Availability.

EXAMPLE: WAMT1 AT-50R00F-T = 0.040" x 0.020" x 0.010", Alumina Substrate, 50Ω, ±1% Tol., ±150ppm/°C, w/ Solder. Full Wrap Around. Solder option applies to all Conductor Surfaces

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