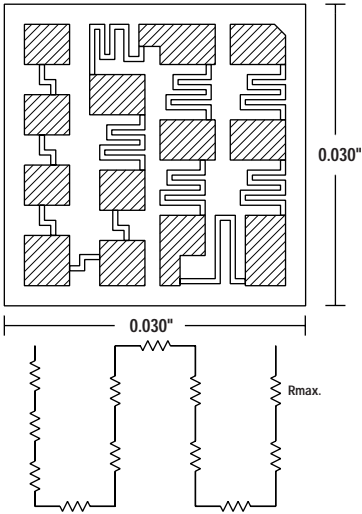


THIN FILM MULTI-TAP RESISTORS

MSMT 117 SERIES



MECHANICAL DATA

SIZE	0.030" x 0.030" x 0.010" (± 0.003 ")
SUBSTRATE	SILICON
RESISTOR	TANTALUM NITRIDE
BOND PADS	25,000 Å MINIMUM GOLD; ALUMINUM OPTIONAL
BACKSIDE SURFACE	BARE SUBSTRATE STANDARD GOLD BACK OPTIONAL. SUITABLE FOR EUTECTIC DIE ATTACH

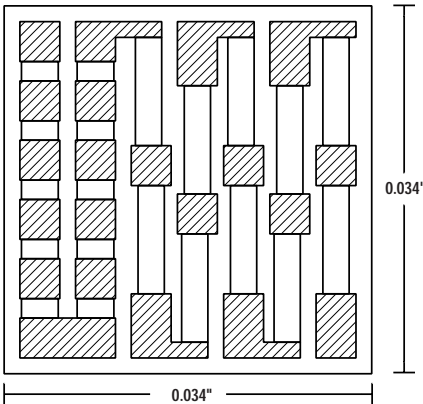
ELECTRICAL DATA

RESISTANCE RANGE	TOTAL RESISTANCE VALUES: 80Ω, 150Ω, 800Ω, 2,400Ω, 8,000Ω, 12,000Ω, 24,000Ω, 80,000Ω, 160,000Ω
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OTHER VALUES AVAILABLE,
PLEASE CONSULT SALES

(THE SEVEN RESISTORS BETWEEN PADS 1 AND 8 ARE EACH 12.5% OF THE TOTAL RESISTANCE VALUE; THE FIVE RESISTORS BETWEEN PADS 8 AND 13 ARE EACH 2.5% OF THE TOTAL RESISTANCE VALUE.)

MSMT 125 SERIES



MECHANICAL DATA

SIZE	0.034" x 0.034" x 0.010" (± 0.003 ")
SUBSTRATE	SILICON
RESISTOR	TANTALUM NITRIDE
BOND PADS	25,000 Å MINIMUM GOLD; ALUMINUM OPTIONAL
BACKSIDE SURFACE	BARE SUBSTRATE STANDARD GOLD BACK OPTIONAL. SUITABLE FOR EUTECTIC DIE ATTACH

ELECTRICAL DATA

RESISTANCE RANGE THERE ARE 20 RESISTORS, WITH THE FIRST 10 RESISTORS EQUAL TO THE NOMINAL VALUE SHOWN IN THE CHART AND THE SECOND 10 RESISTORS EQUAL TO 10X THE NOMINAL VALUE.

TOTAL RESISTANCE	NOMINAL RESISTANCE	TOTAL RESISTANCE	NOMINAL RESISTANCE
1.1KΩ	10Ω	2.75KΩ	25Ω
5.5KΩ	50Ω	11KΩ	100Ω
27.5KΩ	250Ω	55KΩ	500Ω
110KΩ	1000Ω	275KΩ	2500Ω

OTHER VALUES AVAILABLE, PLEASE CONSULT SALES

117 / 125 COMMON SERIES DATA

TOLERANCES	5%, 10% (APPLIES TO INDIVIDUAL RESISTIVE ELEMENTS)
T.C.R.	± 150 ppm/ $^{\circ}$ C STANDARD
CURRENT NOISE	-30dB MAX
POWER RATING	250 mW MAX. (70 $^{\circ}$ C DERATED LINEARLY TO 150 $^{\circ}$ C) P = E ² /R
OPERATING VOLTAGE	100V MAX
SHORT TERM OVERLOAD	5X RATED POWER, 25 $^{\circ}$ C, 5 SEC., $\pm 0.25\%$ MAX. Δ R/R: $\pm 0.1\%$ MSI TYPICAL
HIGH TEMP EXPOSURE	150 $^{\circ}$ C, 100 HRS., $\pm 0.25\%$ MAX. Δ R/R: $\pm 0.03\%$ MSI TYPICAL
THERMAL SHOCK	MIL-STD 202, METHOD 107F, $\pm 0.25\%$ MAX. Δ R/R: $\pm 0.1\%$ MSI TYPICAL
MOISTURE RESISTANCE	MIL-STD 202, METHOD 106, $\pm 0.5\%$ MAX. Δ R/R: $\pm 0.1\%$ MSI TYPICAL
STABILITY	1000 HRS., 70 $^{\circ}$ C, 100% POWER, $\pm 0.5\%$ MAX. Δ R/R: $\pm 0.1\%$ MSI TYPICAL
OPERATING TEMP RANGE	-55 $^{\circ}$ C TO +125 $^{\circ}$ C

PART NUMBER DESIGNATION

MSMT XXX	X	X	XXXXX	X	X
SERIES	SUBSTRATE	RESISTIVE FILM	OHMIC VALUE	TOLERANCE	OPTION
117 125	S = Silicon	T = Tantalum Nitride	5-Digit Number: 1st 4 Digits Are Significant With "R" As Decimal Point When Required. 5th Digit Represents Number of Zeros.	J = 5% K = 10%	E = Aluminum Bond Pads GB = Gold Backside G = Gold Bond Pads

MSI
MINI-SYSTEMS, INC.
THIN FILM DIVISION

45 FRANK MOSSBERG DRIVE, ATTLEBORO, MA 02703
508-226-2111 FAX: 508-226-2211

EXAMPLE: MSMT 125-11000K-G = 125 Series, 1.1KΩ Total Res. Value,
 $\pm 10\%$ Tol., Gold Bond Pads Bare Backside