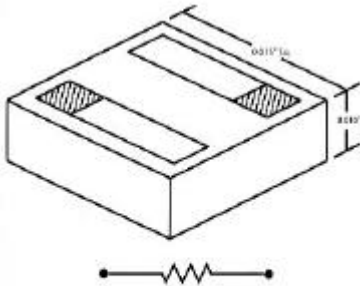


NEW from



INTRODUCING THE SMALLEST THIN FILM CHIP RESISTOR



Minimum bonding area
for < 100Ω Resistance.

The **NEW MSTF 1** series resistor from Mini-Systems Inc offers a space saving design in a .015" x 0.015" case size.

Available in a wide range of substrates including Alumina, Glass, Quartz and Silicon and a resistive film option of Nichrome or Tantalum Nitride. Values range from 2Ω to 300 KΩ depending on the substrate and tolerances from 0.1% to 10 % are available.

Options for +/-5, 10, 25, 50 & 100 ppm/°C, Aluminum or Gold bond pads and Gold Backside can all be specified.

MSTF 1 SPECIFICATION

Mechanical Data

Size:	0.015" x 0.015" x 0.010" (+/- .003")	
Substrate:	Silicon, Alumina, Quartz or Glass	
Resistor:	Nichrome or Tantalum Nitride	
Bond Pads:	15,000 Å Minimum Gold 10,000 Å Minimum Aluminum (optional)	
Backside Surface:	Bare substrate	

Electrical Data

Resistance Range:	Silicon, Quartz, Glass	Nichrome 2Ω to 300KΩ	Tantalum Nitride 2Ω to 300KΩ
	Alumina	2Ω to 25KΩ	2Ω to 25KΩ
T.C.R.		+/- 25ppm/°C Standard -100 +/- 50ppm/°C Standard Optional to +/-5ppm/°C Optional to +/-10ppm/°C (G,Q,S) +/-25ppm/°C (A)	

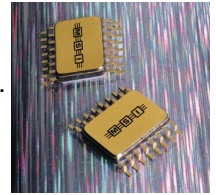
Series Data

Current Noise	101Ω to 250KΩ -40dB ≤100Ω or ≤250KΩ -30dB
Dielectric Breakdown	400 V min
Insulating Resistance	10 ¹² Ω Min
Operating Voltage	100 V Max
Power Rating	50mW Total (70° C Derated linearly to 150° C) P=vE*R
Short Term Overload	5X Rated Power, 25° C, 5 Sec., +/-0.25% Max. ΔR/R: +/-0.1% MSI Typical
High Tem Exposure	150° C, 100 Hours, +/-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 hours, 70° C, 100% power, +/-0.1% MSI Typical
Operating Temp Range	-55°C to +125° C



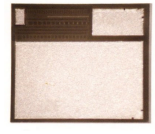
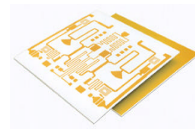
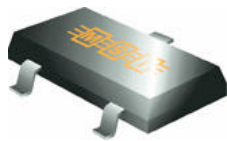
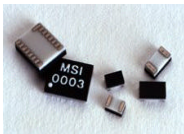
Thin Film Division : ISO 9001 Certified. A leading manufacturer of Precision Hi-Reliability Chip Resistors for more than 30 years. Along with an extensive line of standard products.

The Thin Film Division provide a design service for custom resistor arrays, RC networks, and custom circuits for high frequency applications.



Q.P.L. approved on select MIL-PRF-55342 part styles. "R" Failure Rate Qualified.

Thin Film Chip Resistors	Centre Tapped Chip Resistors	500mWatt Power Resistors
Sichrome High Value & Megohm Chip Resistors	Mini-Surface Mount Resistor Networks	Dual Isolated & Thin Film Dual Resistor Networks
Thin Film Back Contact Resistors	Wire Bondable Thin Film Resistors	Microwave Chip Resistors
Multi-tap Resistors (LOG)	Thin Film Multi-tap Resistors	Thin Film Surface Mount Resistors
Surface Mount & Wire Bondable Chip Resistor Kits	Metallized / Patterned Substrates & Plates	RC & Hermetic Surface Mount Resistor Networks
Power & Thin Film Chip Attenuators	Thin Film Jumpers	Resistive Power Terminators
Thin Film Resistor Arrays	MOS & Binary Style Chip Capacitors	Binary Laser Code Resistors
SOT-23 & SOD-323 Packaged Resistors	Thin Film MOS Capacitor Kits	SOIC Packaged Resistor Networks



Thick Film Division: ISO 9001 Certified. MSI has been the leading manufacturer of Precision Hi-Reliability Chip Resistors for more than 30 Years.

MSI's products are designed for superior solder fillets for optimum performance in the area of stability, solderability, adhesion, power dissipation and life. Q.P.L. approved to ALL MIL-PRF-55342 style parts including the /1 part. "S" Failure Rate Qualified. Thick Film Resistors, Attenuators, Resistor Networks, Jumpers, Mounting Pads & Kits all available.

Electronic Package Division : MSI's Electronic Package Division have been providing the Electronics Industry with the highest quality of hybrid microelectronic packages available. The Electronic Package Division is best known for supplying the hybrid alternative to plastic microelectronic packages - the alumina/glass sidewall package. These packages meet military and space level quality as well as exceeding all commercial needs. MSI also offer the same abilities in manufacturing for all other package requirements.

MINI-SYSTEMS INC HAVE NEVER MADE A PART OBSOLETE IN OVER 30+ YEARS !!!

MINI-SYSTEMS INC Precision Thick Film & Thin Film Chip Resistors,
Capacitors and Metal/Glass Sidewall Packages
www.epakelectronics.com