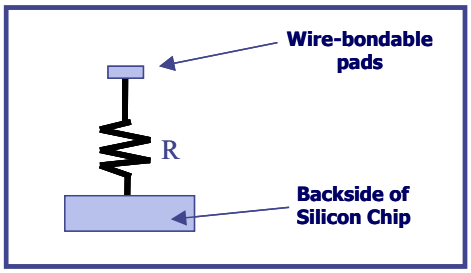
OBJECTIVE DATA SHEET

OnChip TX

Thin Film Back-Contact Silicon Resistor Chip

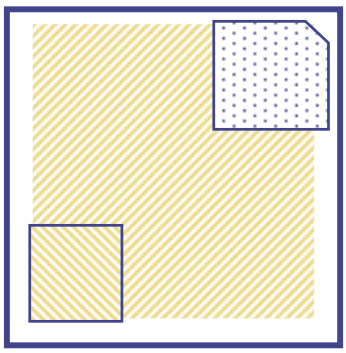
OnChip Devices' TX is a miniature back-contact silicon resistor network with a chip the size of 20 x 20 mils sq. Conductive epoxy or eutectic die-attachment to an active substrate area eliminates the need for a second wire bond. This silicon resistor chip is built using the high reliable Tantalum Nitride resistor material. This product offers a very high degree of stability, extremely low Temperature Coefficient of Resistance and exceptionally low noise.

Electrical Specifications			
Parameter	**Conditions**		
Temperature Coefficient of Resistance	-55°C to 125°C	±250ppm/°C	Max
Operating Voltage	-55°C to 125°C	100Vdc	Max
Power Rating (per resistor)	@ 70°C (Derate linearly to zero @ 150°C)	250mw	Max
Thermal Shock	Method 107 MIL-STD-202F	±0.5% @ΔR	Max
High Temperature Exposure	100 Hrs @ 150°C Ambient	±0.25% ΔR	Max
Moisture Resistance	Method 106 MIL-STD-202F	±0.5% ΔR	Max
Life	Method 108 MIL-STD-202F (125°C/1000 hr)	±0.5% ΔR	Max
Noise	Method 308 MIL-STD-202F upto 250 KΩ ≥250 KΩ	-25dB -20dB	Max
Insulation Resistance	@ 25°C	1 x 10^{12}Ω	Min



Mechanical Specifications	
Substrate	Silicon 10±2 mils thick
Isolation Layer	SiO_2 10,000Å thick, min
Backing	Lapped (gold optional)
Metalization or Pad	Aluminium 10,000Å thick, min (15,000Å gold optional)

Values
From 10Ω to 1 meg Ω for each resistor.



Bonding Area

Packaging
Two inch square trays of 400 chips maximum is standard.

Format
Die Size: 20±3 mils square
Bonding Pads: 4x4 mils

Notes
1. Resistor pattern may vary from one value to another.

Notes: 1. This document supercedes all previous specifications.
2. Specifications are subject to change without notice or obligation.

Part Number Designation				
TX	**6802**	**F**	**TCR**	**Bond Pad**
Series	Value	Tolerance*	A = ±50ppm/°C	No Letter = Aluminium
	First 3 digits are significant value. Last digit represents number of zeros (Ex: 1001 = 1k ohms). R indicates decimal point.	F = ±1%	H = ±100ppm/°C	G = Gold
		G = ±2%	No letter = ±250ppm/°C	
		J = ±5%		
		K = ±10%		
		M = ±20%		