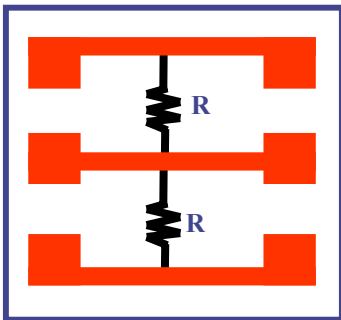


## Thin Film Center-Tapped Silicon Resistor Chip

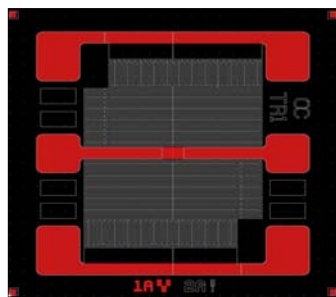
OnChip Devices' TR is a miniature dual resistor network with a common pad in the center. This silicon resistor chip is built using the high reliable Tantalum Nitride resistor material. This product offers a very high degree of stability, extremely low Temperature Coefficient of Resistance and exceptionally low noise.

Electrical Specifications			
Parameter	Conditions		
Temperature Coefficient of Resistance	-55°C to 125°C	±100ppm/°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/1000hr)	±0.5% ΔR	Max
Noise	Method 308 MIL-STD-202F ≥250 KΩ	-25dB	Max
		-20dB	
Centertap Tolerance	R <sub>1</sub> /R <sub>2</sub> @ 25°C	±1.0%	
Insulation Resistance	@ 25°C	1 x 10 <sup>12</sup> Ω	Min



Values
From 4.7Ω to 1 meg Ω for each resistor. Values >1 meg ohms use proprietary resistor material.

Mechanical Specifications	
Substrate	Silicon 10±2 mils thick
Isolation Layer	SiO <sub>2</sub> 10,000Å thick, min
Backing	Lapped (gold optional)
Metalization	Aluminium 10,000Å thick, min (15,000Å gold optional)



■ **Bonding Area**  
**Format**  
 Die Size: 30±3 mils square  
 Bonding Pads: 4x4 mils typical

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

Notes
1. Code boxes for alpha numeric laser marking are available
2. Resistor Pattern may vary from one value to another.

Part Number Designation							
TR	1002	F	A	G	W	P	
Series	Value	Tolerance	TCR	Bond Pads	Backing	Ratio Tolerance	
	First 3 digits are significant value. Last digit represents number of zeros (Ex: 1001 = 1k-ohms). R indicates decimal point.	D = ±0.5%	No letter = ±100ppm/°C	G = Gold	W = Gold	No Letter = ±1%	
		F = ±1%	A = ±50ppm/°C	No Letter = Aluminium	L = Lapped	P = ±0.5%	
		G = ±2%	B = ±25ppm/°C			No Letter = Either	
		J = ±5%					
		K = ±10%					
		M = ±20%					