

# OBJECTIVE DATA SHEET

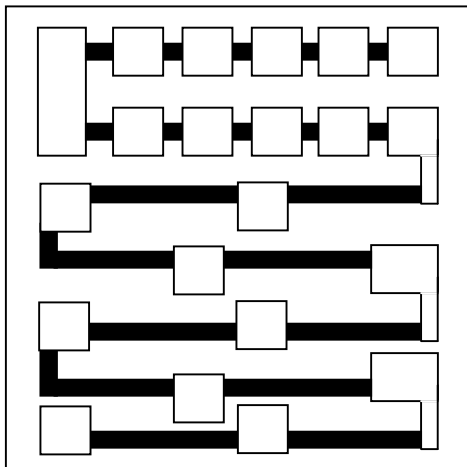
# OnChip

# 110R

## Multi-Tapped Thin Film Resistor Series

OnChip Devices' 110R Series Multi-terminal resistor chip offers the hybrid designer a component that provides a wide range of resistance values on a single chip. Bonding pads segment the total resistance into ten single elements of resistance and 10X elements of resistance enabling the combination of the eight standard parts to cover the resistance range from 1,100 ohms to 275K-ohms.

Electrical Specifications			
Parameter	Test Conditions		
Temperature Coefficient of Resistance	-55°C to +125°C	±250ppm/°C	Max
Operating Voltage	-55°C to +125°C	100Vdc	Max
Package Power Rating	@ 70°C (Derate linearly to zero @ 150°C)	250mw	Max
Thermal Shock	Method 107 MIL-STD-202F	±0.25% @ 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	-20dB	Max
Insulation Resistance	@ 25°C	1 x 10 <sup>12</sup> Ω	Min



### Format

Die Size: 34±3 mils square

Bonding Pads: 4x4 mils typical

VALUES		
Part Number	Total Resistance	Nominal/Single Element of Resistance
110R 1101X	1,100Ω	10
110R 2751X	2,750Ω	25
110R 5501X	5,500Ω	50
110R 1102X	11,000Ω	100
110R 2752X	27,500Ω	250
110R 5502X	55,000Ω	500
110R 1103X	110,000Ω	1,000
110R 2753X	275,000Ω	2,500

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)

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

Notes
1. The tolerance applies to the total resistance value only.
2. Resistor pattern may vary from one value to another.

Part Number Designation				
110R	5502	X	G	W
Series	Value	Tolerance	Bond Pads	Backing
	First 3 digits are significant value. Last digit represents number of zeros. R indicates decimal point.	G = ±2%	G = Gold	W = Gold
		J = ±5%	No Letter = Aluminium	L = Lapped
		K = ±10%		No Letter = Either
		M = ±20%		