14AFR Current Sense resistors feature a high temperature ceramic body which affords the user higher power densities than similar products which utilize silicone based epoxy molding compounds. The internal construction involves a straight, low inductance, 3-piece welded metal element at 1% tolerance. This series is stocked in 9 popular resistance values for easy accessibility.

## FEATURES

- · Ideal for current sensing applications
- 1% Tolerance standard
- · Fixed resistance measuring point
- Low inductance
- · RoHS compliant

### **SPECIFICATIONS**

#### Material

Terminals: Solder-plated copper terminals or copper clad steel depending on ohmic value. Encapsulation: Ceramic cased

body

Derating: Linearly from 4W@70°C to 0W@250°C

#### **Electrical**

Max.Voltage: √(PxR) RMS Climatic Category: 55/200/56 TCR: Varies from +150 to

+1100ppm/°C based on resistance value. TCR increases as resistance value reduces from 51 to 4milliohms. TCR is tested as per IEC Specification 115-1 Clause 4.8.4.2

Tolerance: ±1% standard.

Others available.

Power rating: 4W@70°C

Dielectric withstanding voltage:

1000 VRMS for 3 and 5 watt; 500 VRMS for 2 watt.

Insulation resistance:

Not less than  $1000M\Omega$ .

Thermal EMF:

Less than ±2µV/°C.

Temperature range:

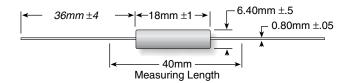
-55°C to 275°C.

PERFURMANCE CHARACTERISTICS			
Test	Condition	Maximum ∆R	
Endurance at Rated Power	1000hrs Test	ΔR <5%	
Terminal Strength	Pull Strength of 50N for 10sec, IEC115-1, Clause 4.16 Test Ua1		
Solderability	95% Coverage as per MIL STD 202F, Test 208		
Resistance to Solder Heat	-260°C for 10sec as per IEC115-1, Clause 4.18	ΔR <0.5%	
Long Term Damp Heat	-90-95% RH @40°C for 56 Days, IEC115-1, Clause 4.24	ΔR <5%	
Climatic Sequence	As per IEC 115-1, Clause 4.23	ΔR <5%	
Overload	5 times rated wattage for 5 seconds		

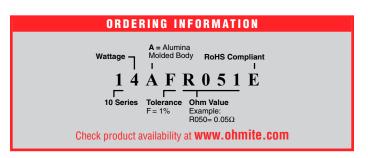
DEDECOMANCE CHADACTEDISTICS



# 14A Series **Alumina Body Current Sense**



Series Wattage Ohms Length Diam. "M"	
Corros Wattago Cinio Longin Diam. III	Lead
<b>14A</b> 4 0.004-0.051 0.709 / 18 0.252 / 6.40 1.575 /	40 0.031/0.80



STD. PART NUMBERS		
Ohmic	Part	
value	Number	
0.004	14AFR004E	
0.005	14AFR005E	
0.008	14AFR008E	
0.010	14AFR010E	
0.015	14AFR015E	
0.022	14AFR022E	
0.033	14AFR033E	
0.047	14AFR047E	
0.051	14AFR051E	