14A Series

Alumina Body Current Sense



Ohmite 14AFR005E 0.005 OHM 1%

FEATURES

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

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.

SERIES SPECIFICATIONS

Series	Wattage	Ohms	
14A	4	0.004-0.051	

	CHARACTERISTICS	
Terminals	Solder-plated copper terminals or copper clad steel depending on ohmic value.	
Encapsulation	capsulation Ceramic cased body	
Derating	ating Linearly from 4W@70°C to 0W@250°C	
Max.Voltage	Max.Voltage √(PxR) RMS	
Climatic Category	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.	



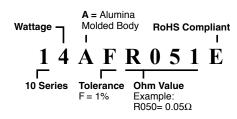
14A Series

Alumina Body Current Sense

DIMENSIONS 36mm ±4 Series Wattage Length Diam. "M" Lead _ 0.80mm ±.05 14A 0.709 / 18 0.252 / 6.40 1.575 / 40 0.031/0.80 40mm -Measuring Length

PERFORMANCE CHARACTERISTICS					
Test	Condition	Maximum ΔR			
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				

ORDERING INFORMATION



Standard 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			