



**THE DATASHEET OF
14AFR033E**



14A Series

Alumina Body Current Sense



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

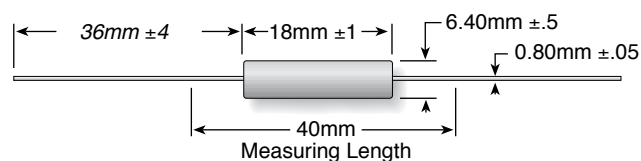
Terminals	Solder-plated copper terminals or copper clad steel depending on ohmic value.
Encapsulation	Ceramic cased body
Derating	Linearly from 4W@70°C to 0W@250°C
Max.Voltage	$\sqrt{P \times R}$ RMS
Climatic Category	55/200/56
TCR	Varies from +150 to +1100ppm/°C based on resistance value. TCR increases 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 1000MΩ.
Thermal EMF	Less than ±2μV/°C.
Temperature range	-55°C to 275°C.

(continued)

14A Series

Alumina Body Current Sense

DIMENSIONS

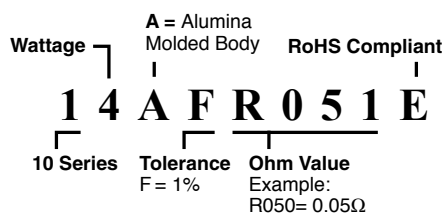


Series	Wattage	Length	Diam.	"M"	Lead
14A	4	0.709 / 18	0.252 / 6.40	1.575 / 40	0.031/0.80

PERFORMANCE CHARACTERISTICS

Test	Condition	Maximum ΔR
Endurance at Rated Power	1000hrs Test	$\Delta R < 5\%$
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	$\Delta R < 0.5\%$
Long Term Damp Heat	90-95% RH @40°C for 56 Days, IEC115-1, Clause 4.24	$\Delta R < 5\%$
Climatic Sequence	As per IEC 115-1, Clause 4.23	$\Delta R < 5\%$
Overload	5 times rated wattage for 5 seconds	

ORDERING INFORMATION



Standard part numbers

Ohmic value	Part 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

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View 14AFR033E](#) on WIN SOURCE

 [Ohmite](#) Information

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management