

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **CS3** Series

# Wire Element Four Terminal Precision Current Sense

The CS3 Series utilizes state of the art technology to achieve highly reliable non-inductive performance. The CS3 is ideal for current monitoring and control applications.

#### **FEATURES**

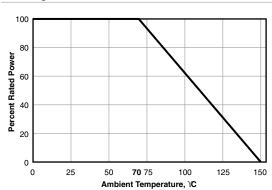
- Values beginning at 1 miliohm
- Non Inductive Design
- Four terminal Kelvin connection



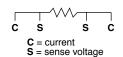
#### **CHARACTERISTICS**

Terminal Material	Kelvin Terminals; 97% Sn / 3% Ag solder over copper		
Encapsulation	Polyester over resistance element		
Standard Resistance Values	1 mΩ - 50 mΩ		
Resistance Tolerances	1%, 2%, 5%		
Temperature Coefficient	TC referenced to 25°C, ΔR taken at -15°C and +105°C, 60ppm/°C		
Power Rating	3W at 70°C max. 40Amp permanent		
Operating Temp.	-55°C to 150°C		
Storage Temp.	-40°C to 85°C		

#### **Derating**



#### **Internal Circuit**



#### PERFORMANCE DATA

Load Life	(1,000 hours at rated power at 70°C)	$\Delta R$ 0.2% max.
Moisture Resistance	(Mil-Std-202, Method 106, Cond. A)	ΔR 0.2% max.
Thermal Shock	(Mil-Std-202, Method 107)	ΔR 0.2% max.

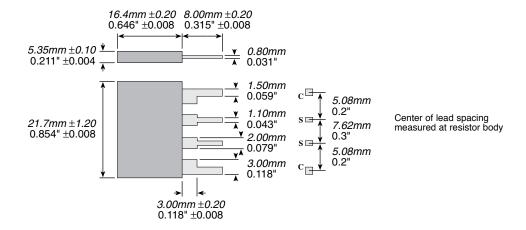
OHMITE

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# Wire Element Four Terminal Precision Current Sense

#### DIMENSIONS

(mm/in.)



#### ORDERING INFORMATION

#### Standard part numbers for CS3 series

$\mathbf{C}$	$\frac{\mathbf{S}}{\mathbf{J}}$	$\frac{\mathbf{R} 0 5}{0}$	<u>0</u> <u>E</u>
Style	<b>Tolerance</b> F = 1% G = 2% J = 5%	Ohms R = Decimal Example: R010 = 0.010 R005 = 0.005	RoHS Compliant Non-compliant version not recommended for new designs

Series Tolerance	CS3F 1%	Series Tolerance	CS3F 1%
Ohms		Ohms	
0.001 0.002 0.003 0.005 0.01	CS3FR001E CS3FR002E CS3FR003E CS3FR005E CS3FR010E	0.015 0.02 0.025 0.03 0.036 0.05	CS3FR015E CS3FR020E CS3FR025E CS3FR030E CS3FR036E CS3FR050E