



## 0805 Precision Thin Film Resistor CSP (Chip Scale Package)

### Features

- Standard 0805 Format
- SMD chips
- Absolute tolerance of 0.1%
- Temperature Coefficient (TCR) of 25ppm/°C

### Applications

- Voltage dividers
- Current sensing
- Current limiting
- Precision gain setting

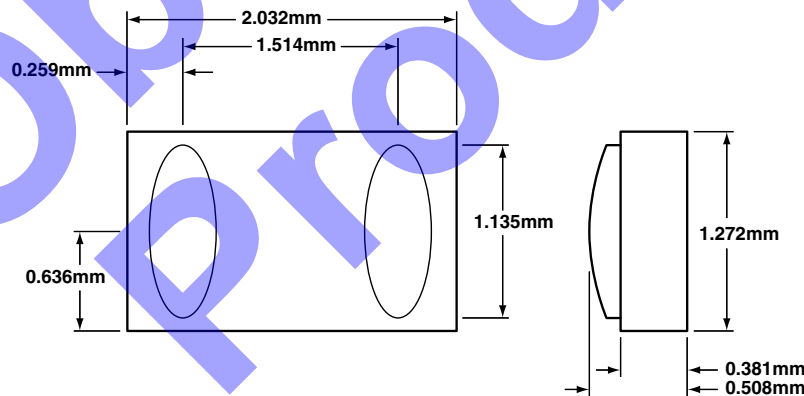
### Product Description

California Micro Devices' resistors offer a high degree of stability and low noise as well as the proven reliability characteristics of Tantalum Nitride. FERN303 series offers these advantages in a CSP (Chip Scale Package). FERN303 devices are built on ceramic with solder bumps for direct placement onto printed circuit boards. They are compatible with 0805 footprint.

#### SCHEMATIC CONFIGURATION



### Package Diagram



#### ORDERING INFORMATION

Part Series	Resistive Value (XXXX)	Tolerance	TCR
FERN303	1003	J	A
	First 3 digits are significant value (R indicates decimal point). Fourth digit represents number of zeros to follow. (e.g. 100K = 1003)	J = ±5% G = ±2% F = ±1% D = ±0.5% B = 0.1%	No Letter = ±100ppm A = ±50ppm B = ±25ppm



RESISTANCE RANGE	
40K $\Omega$ to 150K $\Omega$	

ELECTRICAL SPECIFICATIONS			
Parameter	Test Condition		
TCR	-55°C to +125°C	$\pm 25$ ppm/°C	Max
Operating Voltage	-55°C to +125°C	100Vdc	Max
Power Rating	@ 70°C	200mW	Max
Absolute Tolerance	+25°C	$\pm 0.1\%$	Max
Operating Temperature Range		-55°C to +125°C	
Storage Temperature		-65°C to +150°C	

CSP SPECIFICATIONS		
Final Die Size	2.032 x 1.272mm ( $\pm 0.125$ mm)	80 x 50 mil ( $\pm 5$ mil)
Die Thickness (Die & Bump)	0.500mm ( $\pm 0.075$ mm)	20 mil ( $\pm 3$ mil)
Pad Size	0.381 x 1.135mm	15 x 44.6 mil
Pad Pitch	1.514mm nominal	59.6 mil nominal
Bump Height	0.125mm ( $\pm 0.025$ mm)	5 mil ( $\pm 1$ mil)
Die Substrate	Ceramic	Ceramic

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