

SOT-23 THIN FILM VOLTAGE DIVIDER NETWORK

SiliconApps SARN102 voltage divider resistor array offers a high degree of stability, low noise and the proven reliability characteristics of thin film Tantalum Nitride resistor materials. These devices are manufactured using advanced Thin Film Technology. Products are RoHS compliant.

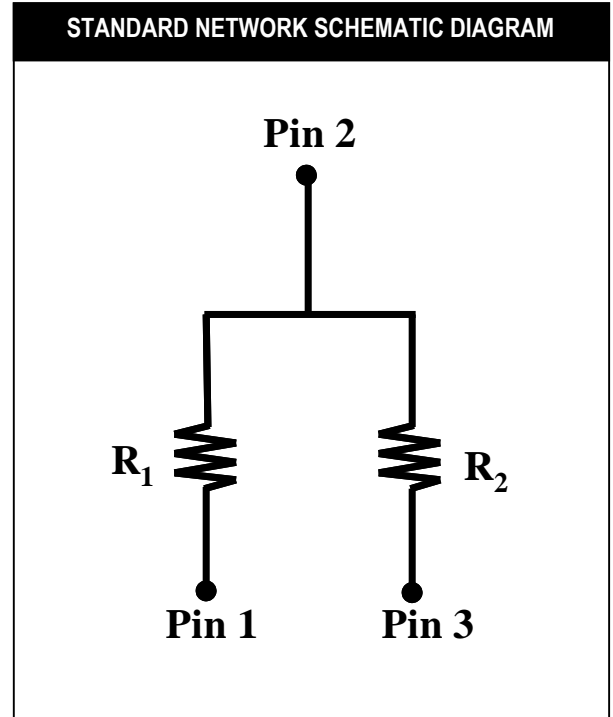
The resistance range (per resistor) is 50Ω to $50K\Omega^1$.

Operating Temperature Range	-55°C to 150°C
Maximum Power Rating for each Resistor	200mW
Voltage	100V
Noise, Maximum (MIL-STD-202, Method 308)	-25dB
Absolute Resistance Tolerance at 25°C (%)	± 0.1%
Ratio	± 0.1%
Temperature Coefficient of Resistance, ppm/°C	± 150
Typical Tracking TCR, ppm/°C	± 5

MECHANICAL	
Package Type	3-pin SOT-23
Lead Plating	Tin-Lead
Lead Material ²	Copper Alloy
Lead Co-planarity	0.004" (0.102mm)
Substrate Material	Silicon
Resistor Material	Tantalum Nitride
Body Material	Molded Epoxy
Flammability	UL94V-0

POWER (WATTS) DISSIPATION @ 70°C

0.225W



ENVIRONMENTAL PERFORMANCE TO MIL-PRF-83401

TEST	CHAR "H" DELTA LIMIT	MAX.	TYPICAL
Thermal Shock	0.5	0.1	0.02
Power Conditioning	0.5	0.1	0.03
Low Temp. Operation	0.1	0.1	0.02
Short Time Overload	0.1	0.1	0.02
Terminal Strength	0.25	0.1	0.02
Resistance to Solder Heat	0.2	0.1	0.02
Moisture Resistance	0.4	0.1	0.03
Shock	0.25	0.1	0.02
Vibration	0.25	0.1	0.02
Life	0.5	0.1	0.05
High Temp. Exposure	0.2	0.1	0.05
Low Temp. Exposure	0.2	0.05	0.03
25% Double Load	0.5	0.1	0.05

Part Number Designation							
SARN102	-	1001	/	1001	F	A	P
Series		R1 Res Value		R2 Res Value	Abs. Tolerance	TCR	Ratio Match
		First 3 digits are significant value. Last digit represents number of zeros (Ex: 1001 = 1k-ohms). R indicates decimal point.		First 3 digits are significant value. Last digit represents number of zeros (Ex: 1001 = 1k-ohms). R indicates decimal point.	C = $\pm 0.1\%$	No letter = $\pm 150\text{ppm}/^\circ\text{C}$	No Letter = $\pm 1\%$
			D = $\pm 0.5\%$		A = $\pm 50\text{ppm}/^\circ\text{C}$	P = $\pm 0.5\%$	
			F = $\pm 1\%$		B = $\pm 25\text{ppm}/^\circ\text{C}$	Q = $\pm 0.1\%$	
			G = $\pm 2\%$			R = $\pm 0.1\%$	
			J = $\pm 5\%$				
			K = $\pm 10\%$				
				M = $\pm 20\%$			

Packaging:

Parts packaged in 3-pin SOT-23 package will be shipped in tape&reel at 3,000/reel.

This document supercedes all previous specifications.

Please contact the factory for further details on this product.

NOTES:

- 1) Other resistor values are available.
- 2) Lead Free packages are also available.