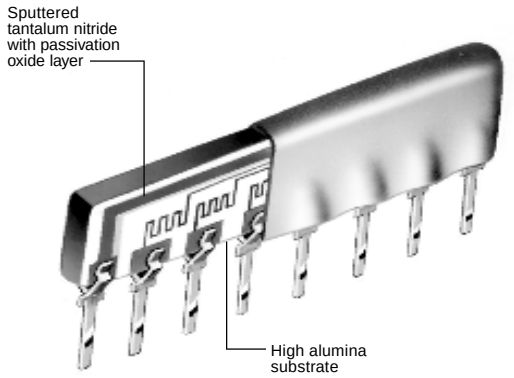
ECONOMICAL TANFILM® CONFORMALLY COATED SIP NETWORK

ISO-9001 Registered

SMXX SERIES

- High precision
- Low profile
- High component density
- Superior TCR tracking
- 3 standard sizes
- Proven reliability
- Custom pin counts available



The economical solution to increasing precision resistor component density is IRC's commercial SMXX Series SIP Ultra Precision Resistor Network. This small footprint, conformally coated SIP features three (3) standard sizes (6, 8, 10 pin versions) and three (3) different circuits schematics and is only 0.250" high.

The real advantage of this package is the adaptation of our ultra stable Tantalum Nitide resistor film system to an economical solder assembly to provide the ultimate in precision and economy.

Our TaNFilm® manufacturing process of sputtering tantalum nitride on to ceramic substrates ensures uniform temperature characteristics of all the resistors in the networks. The resistance film is then passivated to improve its stability and make it virtually impervious to environmental elements.

When you need high precision and ultimate reliability in a limited space, the TaNFilm® SM Series is the solution. This conformally coated SIP network can be tailored to meet special circuit configurations with multiple resistance values.

SPECIFICATIONS

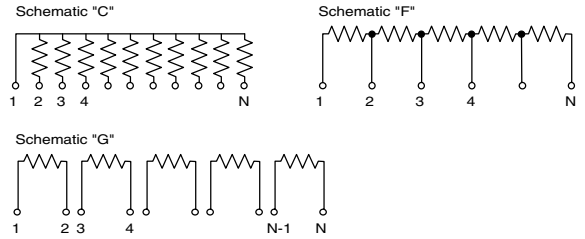
Resistance Ranges (Ω)	Schematic C: 49.9 to 121K Schematic F: 20 to 200K Schematic G: 20 to 500K Higher and lower resistance values available
Standard Resistance Tolerance (±%)	0.1, 0.5, 1, 2 (.05 available)
Temperature Coefficient of Resistance	available to ±15 ppm/°C
TCR Tracking	±5 ppm/°C (except Schematic C below 500Ω ± 20 ppm/°C) ±2 ppm/°C available
Temperature Range	-55°C to +125°C
Noise Level	Less than -30 db
Lead Material	CDA 194 solder coated
Substrate Material	99.5% pure alumina ceramic
Construction	Epoxy conformal coated, solder assembly

POWER RATING AT 70°C

Schematic	Wattage			
	Resistor	Network		
		6 Pin	8 Pin	10 Pin
C,F	0.12	0.60	0.84	1.08
G	0.2	0.60	0.80	1.00

Custom circuits and special testing available.

STANDARD CIRCUITS



ADVANCED FILM DIVISION
4222 South Staples Street • Corpus Christi, Texas 78411 • Tel: 512-992-7900 • Fax: 512-992-3377 • www.irctt.com

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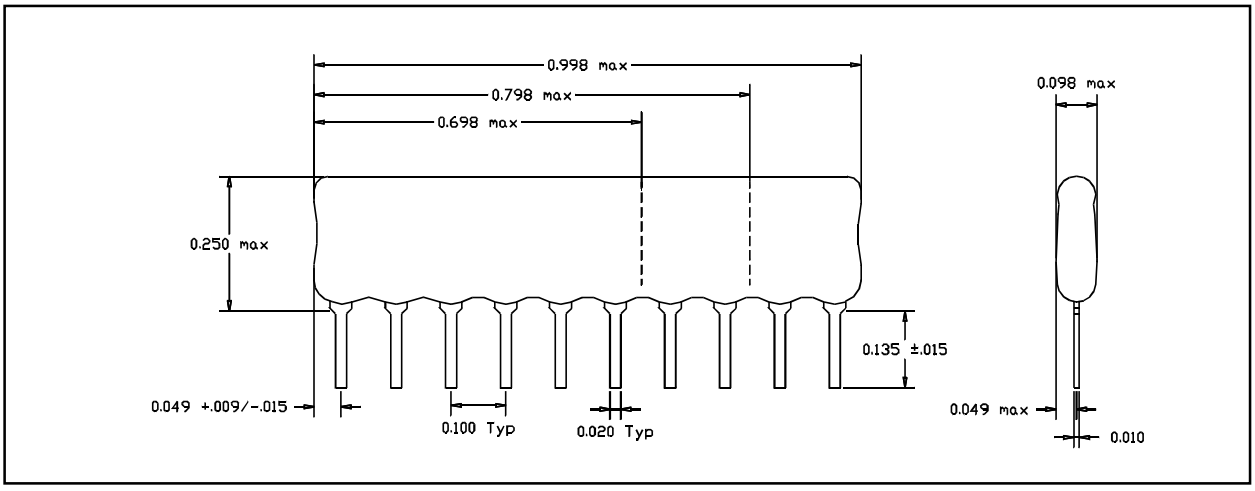
SMXX ENVIRONMENTAL TESTING

Test Per MIL-PRF-83401	MIL-PRF-83401 Limits (ΔR%)			TaNFilm® Test Data (ΔR%)	
	M	K	H	Max	Typical
Thermal Shock and Power Conditioning	0.7	0.7	0.5	0.25	0.05
Low Temperature Operation	0.5	0.25	0.1	0.1	0.05
Short Term Overload	0.5	0.25	0.1	0.1	0.05
Terminal Strength	0.25	0.25	0.1	0.1	0.05
Resistance to Solder Heat	0.25	0.25	0.1	0.1	0.05
Moisture Resistance	0.5	0.5	0.4	0.2	0.05
Shock	0.25	0.25	0.25	0.2	0.05
Vibration	0.25	0.25	0.25	0.2	0.05
Life	2.0	0.5	0.5	0.25	0.05
High Temperature Exposure	1.0	0.5	0.2	0.1	0.05
Low Temperature Storage	0.5	0.25	0.1	0.1	0.05
25°C Double Load	2.0	0.5	0.5	0.1	0.05

DIMENSIONS (Inches)



HOW TO ORDER

Sample Part No **BAS - S M 8 C - 0 3 - 1 0 0 1 - B - X**

Family

Model
SM=Medium Profile
(Other profiles available)

Pin Size
6=6 pin; 8=8 pin; 0=10 pin

Schematic
C, F, G

TCR Code (ppm/°C)
01=±100; 02=±50; 03=±25
Example: 1001 = 1000 ohms

Resistance
Standard MIL resistance code.

Absolute/Ratio Tolerance Code
A=±0.05%; B=±0.1%; C=±0.25%;
D=±0.5%; F=±1.0%;G=±2.0%;

Absolute Tolerance
Standard MIL tolerance code

Ratio Tolerance to R_1
(if specified)

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