TaNFilm[®] Precision Molded DIP Resistor Network



M900 Series

- Ratios tolerances to ±0.05%
- Absolute TCR to ±25ppm/°C
- Superior TCR tracking to ±5ppm/°C
- Custom circuit schematics available
- Sn/Pb and 100% matte tin terminations available



IRC's TaNFilm[®] M900 series resistor networks are designed for use in applications requiring a high degree of reliability, stability,

tight tolerance, excellent TCR tracking, and low noise. The molded construction provides excellent dimensional stability for automatic insertion. Our continuous feed, high vacuum sputtering process insures uniform properties from network to network. Precise state-of-the-art laser trimming enables us to easily zero in the tightest ratios. Passivated Tantalum Nitride resistor film ensures performance far superior to military specifications and provides excellent environmental protection.

The versatile nature of our photo-etch process makes it possible to supply virtually any circuit configuration needed to meet special customer requirements. Custom circuit designs can be easily achieved with a modest set up charge. Military screening available on all units.

Schematic	Resistance Range (Ω)	Absolute Tolerance	Optional Ratio Tolerance	Absolute TCR (ppm/°C) Tracking TCR (ppm/°C)		Element Power (mW)	
	10 - 49.9	F, G, J	F, G	±50; ±100; ±300	±20		
A	50.0 - 199	F, G, J	D, F, G	±25; ±50; ±100; ±300	±10	000	
	200 - 999	B, D, F, G, J	A, B, D, F, G ±25; ±50; ±100; ±300		±5	200	
	1.0K - 400K	B, D, F, G, J	A, B, D, F, G	±25; ±50; ±100; ±300 ±5			
В	50 - 149	B, D, F, G, J	B, D, F, G	±300; ±100	±50		
	150 - 499	B, D, F, G, J	B, D, F, G	±300; ±100; ±50	±20	400	
	500 - 999	B, D, F, G, J	B, D, F, G	±25; ±50; ±100; ±300	±5	100	
	1.0K - 200K	B, D, F, G, J	B, D, F, G	±25; ±50; ±100; ±300	±5		

Electrical Data

Package Specification Data

Schematic	Package Power (W)		Voltage Rating	Temperature Range	Substrate	Lead Finish Options	Noise	
	8-pin	14-pin	16-pin					
А	0.8	1.4	1.6	√PxR not to exceed 100V		Sn/Pb solder plate 100% matte tin plate	<-30dB	
В	0.7	1.3	1.5				roo /o matto tin plato	

Custom circuits and special testing available. *Contact factory for values below 200 $\!\Omega$

General Note IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.

© IRC Advanced Film Division • 4222 South Staples Street • Corpus Christi Texas 78411 USA Telephone: 361 992 7900 • Facsimile: 361 992 3377 • Website: www.irctt.com



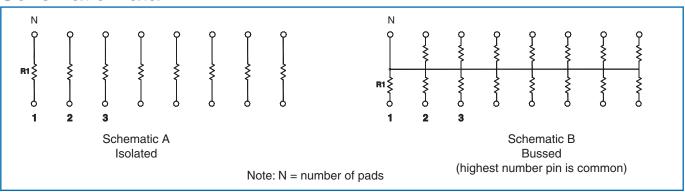
TaNFilm[®] Precision Molded DIP Resistor Network



Environmental Data

	MIL-PRF-83401 Limits (Delta R%)			TaNFilm Test Data (Delta R%)	
Test Per MIL-PRF-83401	М	К	н	Мах	Typical
Thermal Shock And Power Conditioning	0.7	0.7	0.5	0.10	0.02
Low Temperature Operation	0.5	0.25	0.1	0.1	0.02
Short-term Overload	0.5	0.25	0.1	0.05	0.02
Terminal Strength	0.25	0.25	0.25	0.1	0.02
Resistance To Solder Heat	0.25	0.25	0.1	0.1	0.02
Moisture Resistance	0.5	0.5	0.4	0.1	0.02
Shock	0.25	0.25	0.25	0.1	0.02
Vibration	0.25	0.25	0.25	0.1	0.02
Life	2.0	0.5	0.5	0.1	0.02
High Temperature Exposure	1.0	0.5	0.2	0.1	0.02
Low Temperature Storage	0.5	0.25	0.1	0.1	0.02
25°C Double Load	2.0	0.5	0.5	0.05	0.02

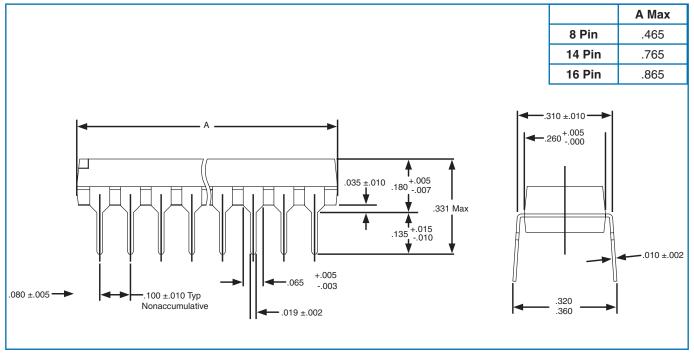
Schematic Data



TaNFilm[®] Precision Molded **DIP Resistor Network**



Physical Data



Ordering Data

Sample Part No DBP - M989 - 02 - 1002 - F B
Style
M954, M954LF = 8-pin DIP, schematic B
M959, M959LF = 8-pin DIP, schematic A
M987, M987LF = 14-pin DIP, schematic B
M989, M989LF = 14-pin DIP, schematic A
M998, M998LF = 16-pin DIP, schematic B
M999, M999LF = 16-pin DIP, schematic A
Note: LF indicates 100% matte tin terminations
TCR Code
01 = ±100ppm/°C; 02 = ±50ppm/°C; 03 = ±25ppm/°C
Resistance
4-Digit resistance code
Ex: $1002 = 10K\Omega$; $50R1 = 50.1\Omega$
Absolute Tolerance Code
G = $\pm 2\%$; F = $\pm 1\%$; D = $\pm 0.5\%$; C = $\pm 0.25\%$; B = $\pm 0.1\%$
Optional Ratio Tolerance to R

 $G = \pm 2\%$; $F = \pm 1\%$; $D = \pm 0.5\%$; $C = \pm 0.25\%$; $B = \pm 0.1\%$; $A = \pm 0.05\%$