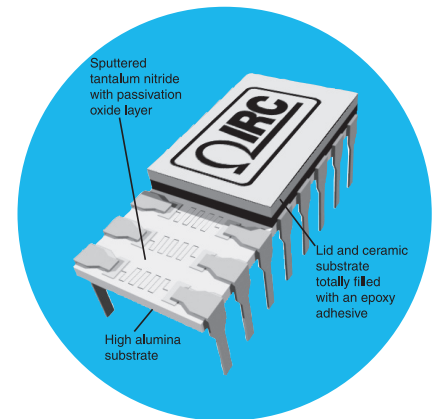


TaNFilm® Precision DIP Network Commercial and MIL Qualified

1900 Series

- Inherent reliability
- MIL-PRF-83401 qualified
- Custom configuration available
- Bonded leads not susceptible to solder reflow problems
- Absolute tolerance to $\pm 0.1\%$ / ratio tolerance to $\pm 0.05\%$
- Absolute TCR to $\pm 15\text{ppm}/^\circ\text{C}$ / ratio tracking to $\pm 5\text{ppm}/^\circ\text{C}$



 All Pb-free parts comply with EU Directive 2011/65/EU (RoHS2)

The IRC 1900 Series is the ultimate combination of precision performance, reliability, and long term stability in a low profile, TaNFilm® DIP package. Rugged welded lead construction combined with the inherent passivation characteristics of tantalum nitride insure superior ongoing performance over the installed life of the part.

Visit our website to view a graphical demonstration of IRC's TaNFilm® reliability and performance features.

Electrical Data

Schematic	Resistance Range (Ω)	Absolute Tolerance	Optional Ratio Tolerance	Absolute TCR ($\text{ppm}/^\circ\text{C}$)	Tracking TCR ($\text{ppm}/^\circ\text{C}$)	Military Characteristic	Element Power (mW)
A Commercial	10 - 49.9	F, G, J	F, G	$\pm 50; \pm 100; \pm 300$	± 20	N/A	200
	50.0 - 199	F, G, J	D, F, G	$\pm 25; \pm 50; \pm 100; \pm 300$	± 10		
	200 - 999	B, D, F, G, J	A, B, D, F, G	$\pm 25; \pm 50; \pm 100; \pm 300$	± 5		
	1.0K - 400K	B, D, F, G, J	A, B, D, F, G	$\pm 15; \pm 25; \pm 50; \pm 100; \pm 300$	± 5		
A Military	50 - 100K	B, D, F, G, J	N/A	N/A	N/A	H, K, M	
B Commercial	50 - 149	B, D, F, G, J	B, D, F, G	$\pm 300; \pm 100$	± 50	N/A	100
	150 - 249	B, D, F, G, J	B, D, F, G	$\pm 300; \pm 100; \pm 50$	± 20		
	250 - 999	B, D, F, G, J	B, D, F, G	$\pm 25; \pm 50; \pm 100; \pm 300$	± 5		
	1.0K - 200K	B, D, F, G, J	B, D, F, G	$\pm 15; \pm 25; \pm 50; \pm 100; \pm 300$	± 5		
B Military	50 - 70K	B, D, F, G, J	N/A	N/A	N/A	H, K, M	

Package Specification Data

Schematic	Package Power (W)		Voltage Rating	Temperature Range	Substrate	Lead Finish	Noise
	14-pin	16-pin					
A	1.4	1.6	\sqrt{PxR} not to exceed 100V	-55°C to $+150^\circ\text{C}$	99.6% Alumina	Gold Plate (60/40 Sn/Pb available)	$< -30\text{dB}$
B	1.3	1.5					

General Note

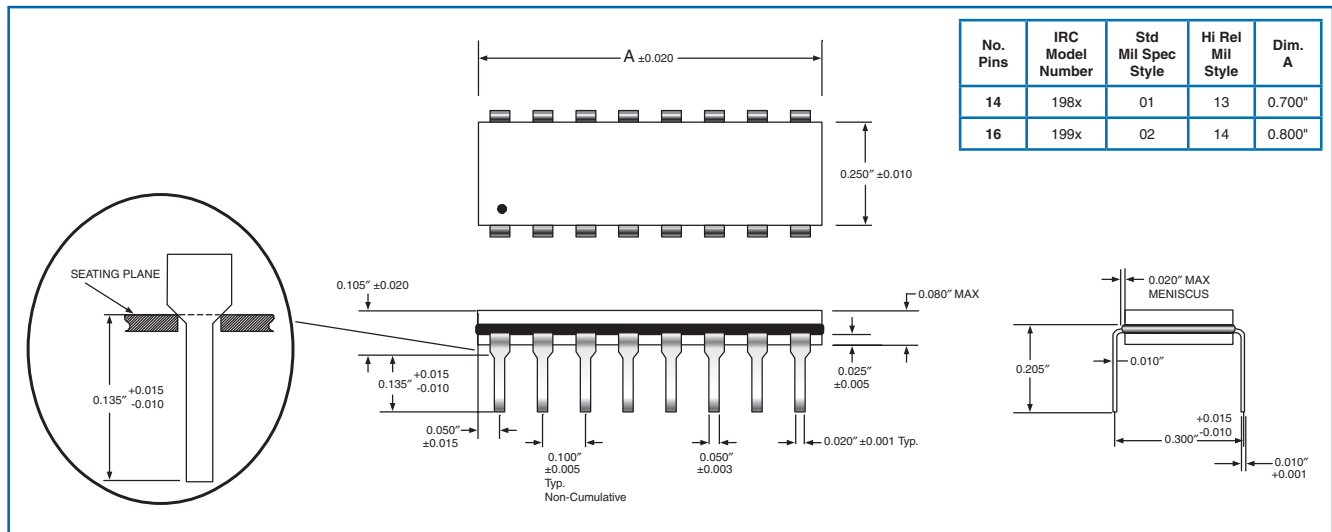
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1900 Series

Environmental Data

Test Per MIL-PRF-83401	MIL-PRF-83401 Limits (Delta R%)			TaNFilm Test Data (Delta R%)	
	M	K	H	Max	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

Physical Data

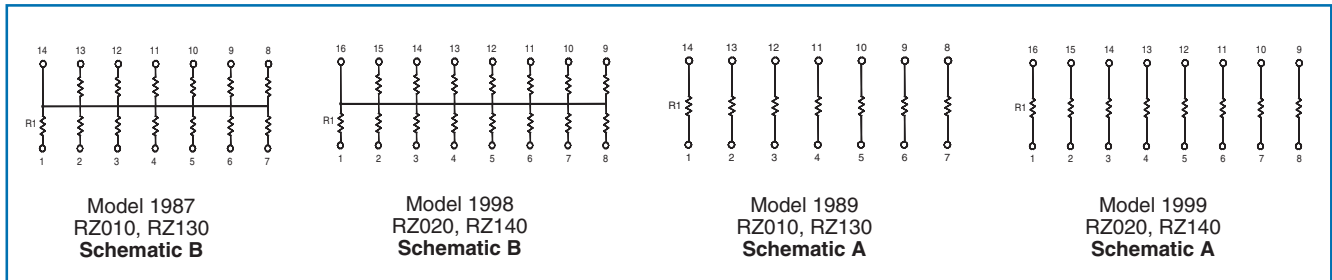


General Note

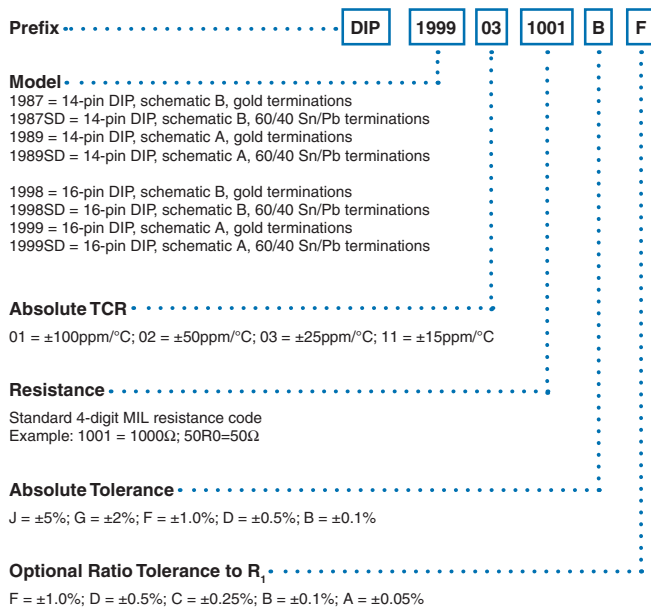
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1900 Series

Schematic Data

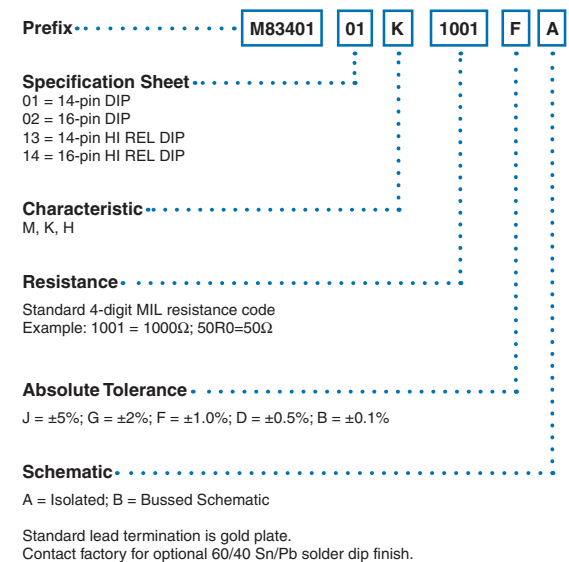


Commercial Ordering Data



Custom schematics and screening available.
 Screening available for non-QPL values and tolerances. Contact factory for ordering information.

MIL Screened Ordering Data (MIL-PRF-83401)



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