

4700 Series

MIL-PRF-83401 QPL Capability Data

Schematic	Resistance Range	Absolute Tolerance	Element Power (mW)	Size	Characteristic
C, G	100 - 100K	B, F, G, J	120	6, 8, 10	M, H, K

Package Specification Data

Schematic	Package Power (mW)			Voltage Rating	Temperature Range	Substrate	Lead Finish	Noise
	6-pin	8-pin	10-pin					
C, F (MIL and Commercial)	600	840	1080	$\sqrt{P \times R}$ not to exceed 100V	-65°C to +125°C	99.6% Alumina	Gold Plate (60/40 Sn/Pb available)	<-30dB
G (MIL)	360	480	600					
G (Commercial)	600	800	1000					

Environmental Data

Test Per MIL-PRF-83401	MIL-PRF-83401 ΔR Limits			TaNFilm® Test Data ΔR	
	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%	±0.05%	±0.02%
Short-term Overload	±0.5%	±0.25%	±0.1%	±0.1%	±0.02%
Terminal Strength	±0.25%	±0.25%	±0.1%	±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%

General Note

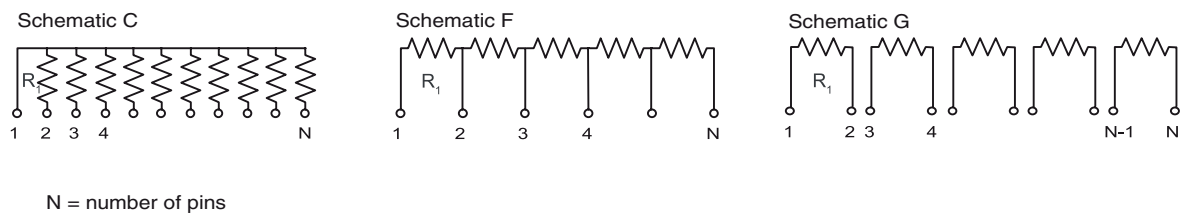
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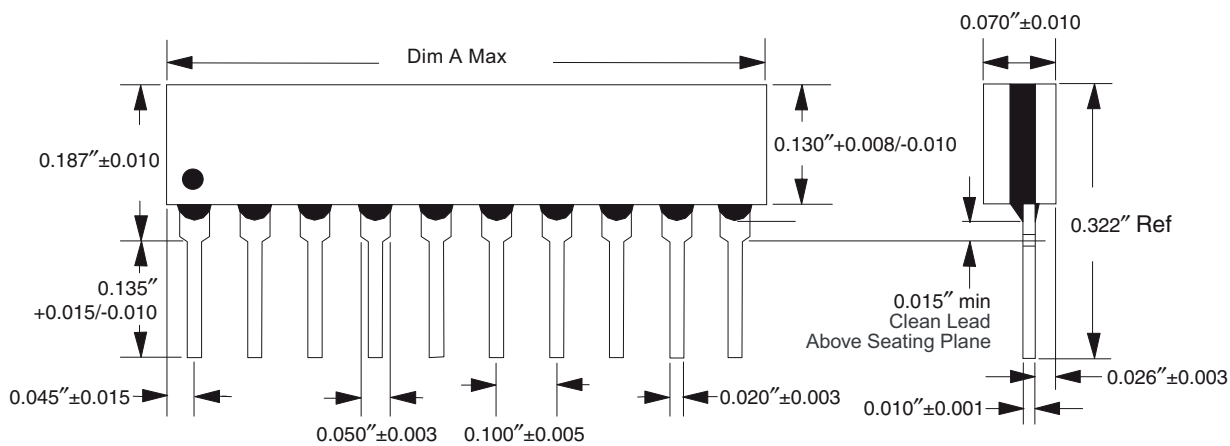
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Schematic Data



Physical Data

No. Pins	IRC Model Number	Std Mil Spec Style	Hi Rel Mil Style	Dim. A
6	476X	RZ070	RZ210	0.598
8	478X	RZ080	RZ220	0.798
10	470X	RZ090	RZ230	0.998



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Commercial and MIL-Screened (Non-QPL) Ordering Data

Sample Part No. SIP - 4781 - 03 - 1001 - F - B

Model

4761 = 6-pin SIP, schematic C, gold terminations
 4761SD = 6-pin SIP, schematic C, 60/40 Sn/Pb terminations
 4768 = 6-pin SIP, schematic F, gold terminations
 4768SD = 6-pin SIP, schematic F, 60/40 Sn/Pb terminations
 4769 = 6-pin SIP, schematic G, gold terminations
 4769SD = 6-pin SIP, schematic G, 60/40 Sn/Pb terminations

4781 = 8-pin SIP, schematic C, gold terminations
 4781SD = 8-pin SIP, schematic C, 60/40 Sn/Pb terminations
 4788 = 8-pin SIP, schematic F, gold terminations
 4788SD = 8-pin SIP, schematic F, 60/40 Sn/Pb terminations
 4789 = 8-pin SIP, schematic G, gold terminations
 4789SD = 8-pin SIP, schematic G, 60/40 Sn/Pb terminations

4701 = 10-pin SIP, schematic C, gold terminations
 4701SD = 10-pin SIP, schematic C, 60/40 Sn/Pb terminations
 4708 = 10-pin SIP, schematic F, gold terminations
 4708SD = 10-pin SIP, schematic F, 60/40 Sn/Pb terminations
 4709 = 10-pin SIP, schematic G, gold terminations
 4709SD = 10-pin SIP, schematic G, 60/40 Sn/Pb terminations

Absolute TCR

01 = $\pm 100\text{ppm}/^{\circ}\text{C}$; 02 = $\pm 50\text{ppm}/^{\circ}\text{C}$; 03 = $\pm 25\text{ppm}/^{\circ}\text{C}$; 11 = $\pm 15\text{ppm}/^{\circ}\text{C}$

MIL-PRF-83401 Group A Screening

04 = $\pm 300\text{ppm}/^{\circ}\text{C}$ Characteristic M; 05 = $\pm 100\text{ppm}/^{\circ}\text{C}$ Characteristic K
 06 = $\pm 50\text{ppm}/^{\circ}\text{C}$ Characteristic H; 07 = $\pm 25\text{ppm}/^{\circ}\text{C}$ Characteristic H

Resistance

Standard 4-digit MIL resistance code
 Example: 1001 = 1000Ω ; 50R0 = 50Ω

Absolute Tolerance

J = $\pm 5\%$; G = $\pm 2\%$; F = $\pm 1.0\%$; D = $\pm 0.5\%$; B = $\pm 0.1\%$

Optional Ratio Tolerance to R_1

F = $\pm 1.0\%$; D = $\pm 0.5\%$; C = $\pm 0.25\%$; B = $\pm 0.1\%$; A = $\pm 0.05\%$; Q = $\pm 0.02\%$; T = $\pm 0.01\%$

Custom schematics and screening available.

Ordering Data - Military (MIL-PRF-83401)

Sample Part No. M83401 - 08 - H - 1002 - F - G

Model

M83401 = Military qualified resistor network

Size

07 = RZ070 6-pin SIP
 08 = RZ080 8-pin SIP
 09 = RZ090 10-pin SIP
 21 = RZ210 Hi-Rel 6-pin SIP
 22 = RZ220 Hi-Rel 8-pin SIP
 23 = RZ230 Hi-Rel 10-pin SIP

Characteristic per MIL-PRF-83401

M; K; H

Resistance

Standard 4-digit MIL resistance code
 Example: 1000 = 100Ω ; 1001 = 1000Ω

Absolute Tolerance Code

J = $\pm 5\%$; G = $\pm 2\%$; F = $\pm 1\%$; B = $\pm 0.1\%$

Schematic

C; G

Standard termination is gold plate. Contact factory for optional 60/40 Sn/Pb hot solder dip finish.

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