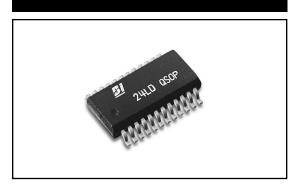
MODEL NQS SERIES

.025" Pitch DIP Precision Thin Film Surface Mount Resistor Networks



FEATURES/BENEFITS

- Unique passivation coating eliminates moisture concerns and allows for use in applications traditionally restricted to tantalum nitride
- Outperforms other thin film resistor materials providing excellent tolerances, ratio matching, temperature coefficient, and temperature tracking
- Improved performance over silicon substrates in stray capacitance, frequency response and stability

ELECTRICAL

Operating Temperature Range	-55°C to +125°C
Resistance Voltco	≈0
Interlead Capacitance	<2pF
Operating Voltage, Maximum	100 Vdc or √PR
Insulation Resistance	≥10,000 Megohms
Noise, Maximum (MIL-STD-202, Method 308)	-40dB

ENVIRONMENTAL

Thermal Shock plus Power Conditioning	ΔR 0.25%
Low Temperature Operation	ΔR 0.10%
Short Time Overload	ΔR 0.10%
Terminal Strength	ΔR 0.10%
Moisture Resistance	ΔR 0.20%
Mechanical Shock	ΔR 0.25%
Vibration	ΔR 0.25%
Low/High Temperature Storage	ΔR 0.10%
Load Life, 1,000 Hours	ΔR 0.10%
Resistance to Solder Heat	ΔR 0.10%
Dielectric Withstanding Voltage	100V for 1 minute
Temperature Exposure, Maximum	215°C for 3 minutes
Marking Permanency	per MIL-STD-202, Method 215
Lead Solderability	per MIL-STD-202, Method 208
Flammability	UL-94V-O Rated
Storage Temperature Range	-55°C to +125°C

Specifications subject to change without notice.



MECHANICAL

Lead Plating	85/15 Tin Lead
Lead Material	Copper Alloy
Lead Configuration	Gull Wing
Lead Coplanarity	0.004" (0.102mm)
Substrate Material	Alumina
Resistor Material	Nichrome
Body Material	Molded Epoxy

-1	0	L	4	 Δ	7	ra	4.

Accuracy Code	В	D	F	G	J
Absolute Resistance Tolerances, at 25°C	0.1%	0.5%	1.0%	2%	5%
Ratio Matching (Matched to R1)	0.1%	0.1%	0.5%	1%	1%
Temperature Coefficient of Resistance			±25ppm/°C (Q)		
			±50ppm/°C (P)		
			±100ppm/°C		

±5ppm/°C

STANDARD RESISTANCE VALUES, OHMS

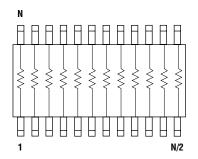
Temperature Coefficient of Resistance, Tracking

NQS	16A	NQS	20A	NQS	20B	NQS	S24A
Ohms	Code	Ohms	Code	Ohms	Code	Ohms	Code
1K	1001	3K	3001	10K	1002	3K	3001
10K	1002	267K	2673				
34K	3402						
47K	4702						
100K	1003						

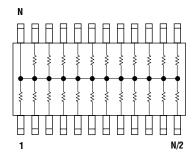
POWER DISSIPATION, WATTS AT 70°C

Model	Package	Resistor	
NQS16	0.8	0.1	
NQS20	1.0	0.1	_
NQS24	1.0	0.1	

NQS16A, NQS20A, NQS24A Isolated Resistors

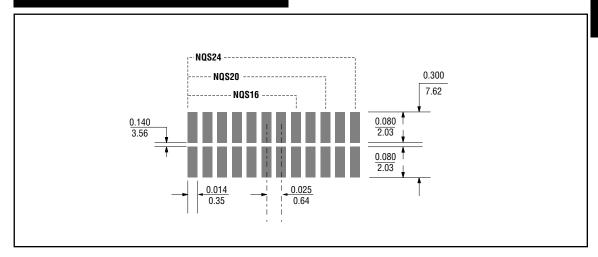


NQS16B, NQS20B, NQS24B Bussed Resistors

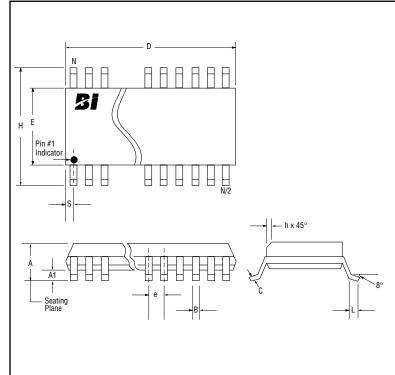


Note: Model NQS16: N = 16 Leads, Model NQS20: N = 20 Leads, Model NQS24: N = 24 Leads.

RECOMMENDED SOLDER PAD LAYOUTS



OUTLINE DIMENSIONS (Inch/mm)



Model	NQS16	NQS20	NQS24	
Dim. A (Max.)	0.068	0.068	0.068	
Dilli. A (Max.)	1.727	1.727	1.727	
Dim. A1 (Max.)	0.008	0.008	0.008	
Dilli. AT (max.)	0.203	0.203	0.203	
Dim. B (Max.)	0.012	0.012	0.012	
Dilli. B (Max.)	0.305	0.305	0.305	
Dim. C (Max.)	0.0098	0.0098	0.0098	
Dilli. 0 (Max.)	0.249	0.249	0.249	
Dim. D (Max.)	0.197	0.345	0.345	
Dilli. D (Wax.)	5.004	8.763	8.763	
Dim. E (Max.)	0.157	0.157	0.157	
Dilli. E (Max.)	3.988	3.988	3.988	
Dim. e (Max.)	0.025	0.025	0.025	
Dilli. C (max.)	0.635	0.635	0.635	
Dim. H (Max.)	0.244	0.244	0.244	
Dilli. II (Max.)	6.198	6.198	6.198	
Dim. h (Max.)	0.016	0.016	0.016	
Dilli. II (IMAX.)	0.406	0.406	0.406	
Dim. L (Max.)	0.035	0.035	0.035	
Dill. L (Max.)	0.889	0.889	0.889	
Dim. S (Max.)	0.010	0.06	0.035	
Dilli. 3 (Max.)	0.254	1.524	0.889	

PACKAGING

Standard: Magazine

All units oriented with lead #1 to the same side.

Magazine: Capacity = 100 Units (16 Leads)

50 Units (20 and 24 Leads)

Option: Embossed Tape & Reel (per EIA 481).

Reel: Diameter 7" Reel 13" Reel
Capacity = 1,000 Units 2,500 unit

