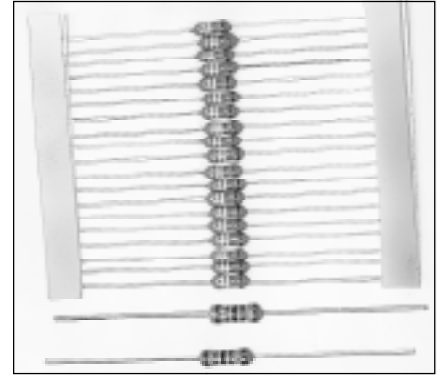


FEATURES

- MEETS OR EXCEEDS MIL-R-10509E SPECIFICATIONS
- ULTRA-LOW NOISE WITH LOW TEMPERATURE COEFFICIENTS
- CLOSE TOLERANCE, PRECISION APPLICATIONS
- EIA COLOR CODING RESISTANT TO INDUSTRIAL SOLVENTS
- AVAILABLE ON TAPE AND REEL FOR AUTOMATIC INSERTION AND BULK PACK FOR SMALL PRODUCTION RUNS OR PROTOTYPES
- ECONOMICALLY PRICED



STANDARD TYPES, RATINGS AND AVAILABILITY

Type	NMR16	NMR25	NMR50	NMR100
Power Rating at 70°C	0.125W	0.25W	0.5W	1W
Max. Working Voltage at 70°C*	150V	250V	350V	500V
Max. Overload Voltage at 70°C	300V	500V	700V	1000V
Resistance Tolerance	(F) ±1%(STD.)	(D) ± 0.5% (OPT.) (F) ± 1.0% (STD)	(F) ±1%(STD.)	(F) ±1%(STD.)
Temperature Coefficient	±50ppm/°C	10Ω ~ 1MegΩ		---
	±100ppm/°C	Less than 10Ω More than 1MegΩ	Less than 10Ω, More than 1MegΩ	*10Ω ~ 1MegΩ
Resistance Value Availability	E96	E96	E96	E96

* Extended resistance range available on request

PERFORMANCE CHARACTERISTICS

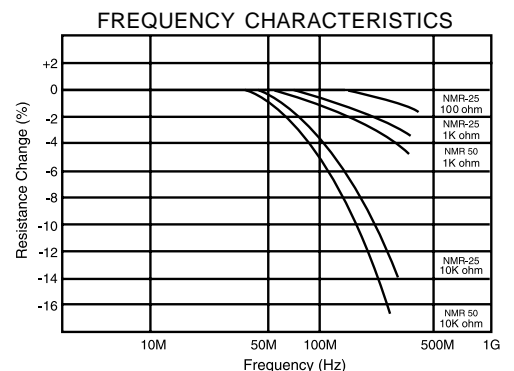
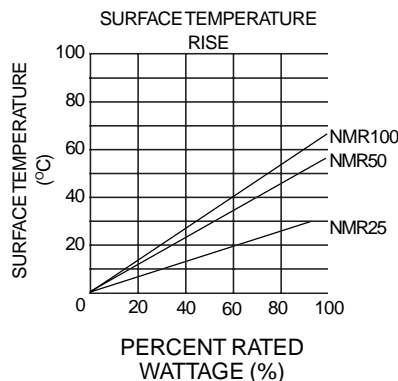
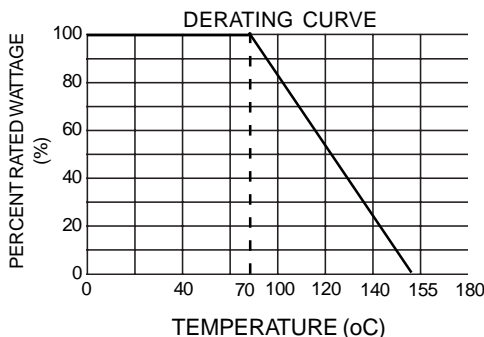
Requirements	Performance	Test Method MIL-R-10509F
Operating Temperature Range	-55 ~ +155°C	
Temperature Coefficient	±50, ±100ppm/°C	4.6.12
Temperature Cycling	$R \leq \pm(0.5\% + 0.05\Omega)$	4.6.6
Low Temperature Operation	$R \leq \pm(0.5\% + 0.05\Omega)$	4.6.5
Short Time Overload	$R \leq \pm(0.5\% + 0.05\Omega)$	4.6.6
Terminal Strength	$R \leq \pm(0.5\% + 0.05\Omega)$	4.6.7
Dielectric Withstanding Voltage	$R \leq \pm(0.5\% + 0.05\Omega)$	4.6.8
Insulation Resistance	10,000MΩ minimum	4.6.9
Soldering Effect	$R \leq \pm(0.5\% + 0.05\Omega)$	4.6.10
Moisture Resistance	$R \leq \pm(1\% + 0.05\Omega)$	(MIL-R-22684B, 4.6.10)
Load Life	$R \leq \pm(1\% + 0.05\Omega)$	4.6.13
Vibration	$R \leq \pm(0.5\% + 0.05\Omega)$	(MIL-R-2268B, 4.6.16)
Current Noise	0.2μV/V (-14dB)	(JIS C5202, 5.9 Method II)
Solvent Resist	MIL-STD-202, Method 215, Trichlorethylene, Trichloroethane Trichlorotrifluoroethane	

** - Maximum allowable continuous voltage (Vdc or rms) for all resistors is the lower of the two values: "MAXIMUM WORKING VOLTAGE" as specified

or

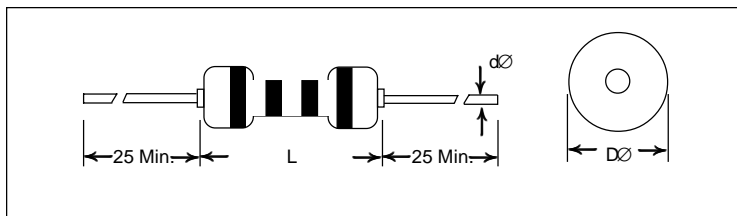
$$\sqrt{\text{Power rating (WATTS x Resistance } (\Omega))}$$

TYPICAL PERFORMANCES



DIMENSIONS (mm)

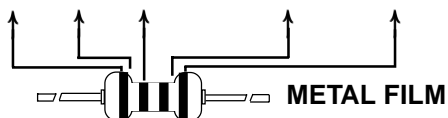
Type	D \varnothing	L	d \varnothing \pm 0.05
NMR16	1.7 \pm 0.2	3.7 \pm 0.4	0.45
NMR25	2.4 \pm 0.4	6.4 \pm 0.5	0.60
NMR50	3.2 \pm 0.5	9.5 \pm 0.5	0.65
NMR100	4.5 \pm 0.5	11.0 \pm 1.0	0.80



LEADED

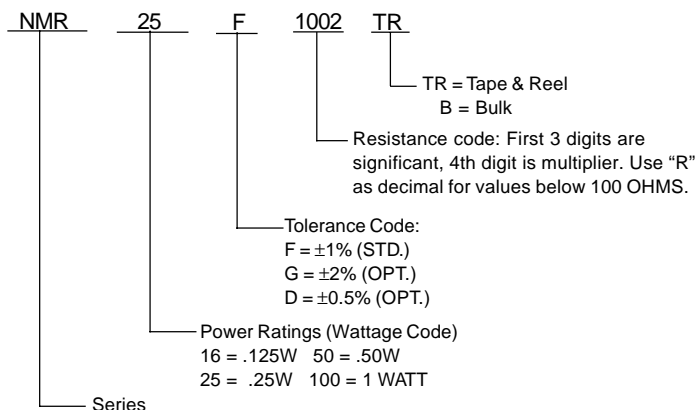
COLOR CODING

Color	Significant Figure			Multiplier	Tolerance
	1st	2nd	3rd		
Black	0	0	0	1	-
Brown	1	1	1	10	F (\pm 1%)
Red	2	2	2	100	G (\pm 2%)
Orange	3	3	3	1,000	-
Yellow	4	4	4	10,000	-
Green	5	5	5	100,000	D (\pm 0.5%)
Blue	6	6	6	1,000,000	C (\pm 0.25%)
Violet	7	7	7	10,000,000	B (\pm 0.1%)
Grey	8	8	8	-	-
White	9	9	9	-	-
Gold	-	-	-	0.1	J (\pm 5%)
Silver	-	-	-	0.01	K (\pm 10%)



Significant Figures of Nominal Resistance Values (E-96 1% Tolerance)			
1.00	1.02	1.05	1.07
1.10	1.13	1.15	1.18
1.21	1.24	1.27	1.30
1.33	1.37	1.40	1.43
1.47	1.50	1.54	1.58
1.62	1.65	1.69	1.74
1.78	1.82	1.87	1.91
1.96	2.00	2.05	2.10
2.15	2.21	2.26	2.32
2.37	2.43	2.49	2.55
2.61	2.67	2.74	2.80
2.87	2.94	3.01	3.09
3.16	3.24	3.32	3.40
3.48	3.57	3.65	3.74
3.83	3.92	4.02	4.12
4.22	4.32	4.42	4.53
4.64	4.75	4.87	4.99
5.11	5.23	5.36	5.49
5.62	5.76	5.90	6.04
6.19	6.34	6.49	6.65
6.81	6.98	7.15	7.32
7.50	7.68	7.87	8.06
8.25	8.45	8.66	8.87
9.09	9.31	9.53	9.76

PART NUMBERING SYSTEM



PACKAGING

TAPE AND REEL - 5000 PIECES
 BULK - 1000 PIECES
 (5 BAGS OF 200 PER BAG)