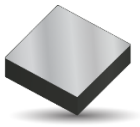
NK20MN0512J--

(0707, 5100 Ohm ±5%, 4077K, Cu wire/100% Sn)

NTC Accurate Thermistor for Wirebonding

for Automotive, Industrial and General applications



KYOCERA AVX Accurate NTC Thermistors are high quality devices with tight tolerance widely used for accurate temperature measurement, compensation,regulation, liquid level or flow detection in wide range of applications, including automotive, industrial and general purpose. Parts have Ag top and bottom surface, suitable for wirebonding.

Characteristics

Chip Size	0707 typ
Operating temperature	-55°C to +150°C
Resistance	5100 Ohm
Tolerance on Resistance (25°C)	±5%
B 25/85	4077K±0.5%
Maximum dissipation at 25°C	0.16 W
Thermal dissipation factor	2 mW/°C
Thermal time constant	6 s
Top and Bottom Surface	Ag

RoHS COMPLIANT

MSL 1

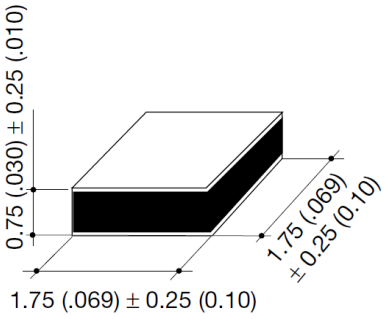
AEC-Q200 based qualification

Dimensions

mm (inches)

Length	Width	Thickness
1.75±0.25	1.75±0.25	0.75±0.25
(0.069±0.01)	(0.069±0.01)	(.030±.010)

Dimensions are for reference only, for actual dimensions on specific PN, please contact KYOCERA AVX



How to Order (Packaging options)

NK	20	MN	0512	J	--
Type	**Size**	**Material Code**	**Resistance (Ohm)**	**Tolerance**	**Suffix: Packaging**
NK = Chip with Ag top and bottom surface (for wirebonding)	20 = 0707 (typ)	See Datasheet	2 Sig. Digits + Number of Zeros	F = ±1% G = ±2% H = ±3% J = ±5%	-- = Bulk (1000 pcs/bag)

NOTICE: Specifications are subject to change without notice. All statements, information and data given herein are beleived to be accurate and reliable, but are presented without guarantee or responsibility of any kind, expressed or implied. Specifications are typical and may not apply to all applications.

Material Table

MN (B25/85 = 4077K±0.5%)

B25/50	B25/75	B25/85	B25/100	B Tol
4031 K	4065 K	4077 K	4093 K	±0.5%

T (°C)	R(T) / R25	TF (%)	α (%/°C)	R Min (Ω)	R Nom (Ω)	R Max (Ω)
-55	103.6	2.54	-7.39	488,325	528,138	567,952
-50	71.79	2.32	-7.14	339,307	366,122	392,938
-45	50.39	2.12	-6.90	238,685	256,980	275,276
-40	35.79	1.92	-6.68	169,886	182,524	195,162
-35	25.71	1.74	-6.46	122,282	131,115	139,949
-30	18.67	1.56	-6.25	88,965	95,209	101,453
-25	13.70	1.39	-6.06	65,392	69,853	74,315
-20	10.15	1.22	-5.87	48,538	51,759	54,980
-15	7.591	1.06	-5.68	36,367	38,715	41,064
-10	5.730	0.91	-5.51	27,494	29,222	30,950
-5	4.362	0.77	-5.34	20,965	22,249	23,532
0	3.349	0.63	-5.18	16,119	17,080	18,041
5	2.592	0.49	-5.03	12,491	13,217	13,943
10	2.021	0.36	-4.88	9,754	10,306	10,859
15	1.587	0.24	-4.74	7,672	8,096	8,520
20	1.256	0.12	-4.60	6,076	6,404	6,732
25	1.000	0.00	-4.47	4,845	5,100	5,355
30	0.8016	0.11	-4.35	3,879	4,088	4,297
35	0.6465	0.22	-4.23	3,125	3,297	3,470
40	0.5246	0.33	-4.11	2,533	2,676	2,818
45	0.4281	0.43	-4.00	2,065	2,184	2,302
50	0.3514	0.53	-3.89	1,693	1,792	1,891
55	0.2899	0.63	-3.79	1,395	1,478	1,562
60	0.2404	0.72	-3.69	1,156	1,226	1,296
65	0.2004	0.81	-3.59	962.4	1,022	1,081
70	0.1678	0.90	-3.50	805.2	855.7	906.1
75	0.1411	0.99	-3.41	676.7	719.8	762.9
80	0.1193	1.07	-3.32	571.3	608.2	645.2
85	0.1012	1.15	-3.24	484.4	516.2	547.9
90	0.0862	1.23	-3.16	412.4	439.8	467.2
95	0.0738	1.31	-3.08	352.5	376.3	400.0
100	0.0634	1.38	-3.00	302.5	323.1	343.8
105	0.0546	1.46	-2.93	260.6	278.5	296.5
110	0.0472	1.53	-2.86	225.2	241.0	256.7
115	0.0410	1.60	-2.79	195.4	209.2	223.0
120	0.0357	1.67	-2.73	170.0	182.2	194.3
125	0.0312	1.73	-2.66	148.5	159.2	169.9
130	0.0274	1.80	-2.60	130.1	139.5	149.0
135	0.0241	1.86	-2.54	114.3	122.7	131.1
140	0.0212	1.92	-2.49	100.7	108.2	115.7
145	0.0188	1.98	-2.43	88.99	95.67	102.4
150	0.0166	2.04	-2.38	78.86	84.83	90.81