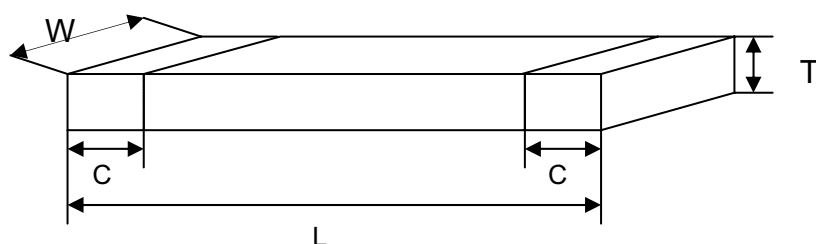


Specification of SMD Chips Thermistor

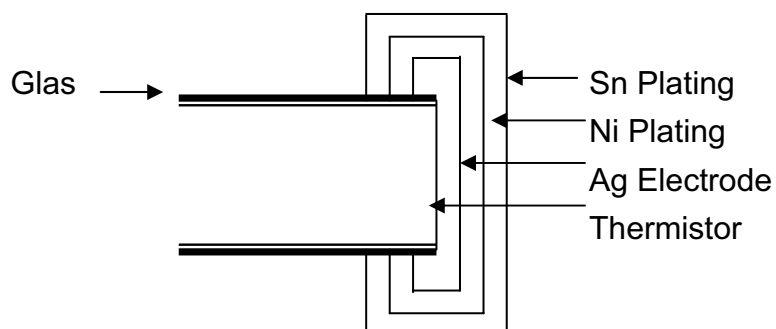
◆ **PART NO. : SMD02-300 J 3250 H**

◆ **CHIP DIMENSIONS**



Item	L(mm)	W(mm)	T(mm)	C(mm)
1005 (0402)	1.00 ±0.05	0.50 ±0.05	0.50±0.05	0.25±0.10

◆ **CHIP STRUCTURE**



◆ **ELECTRICAL CHARACTERISTICS**

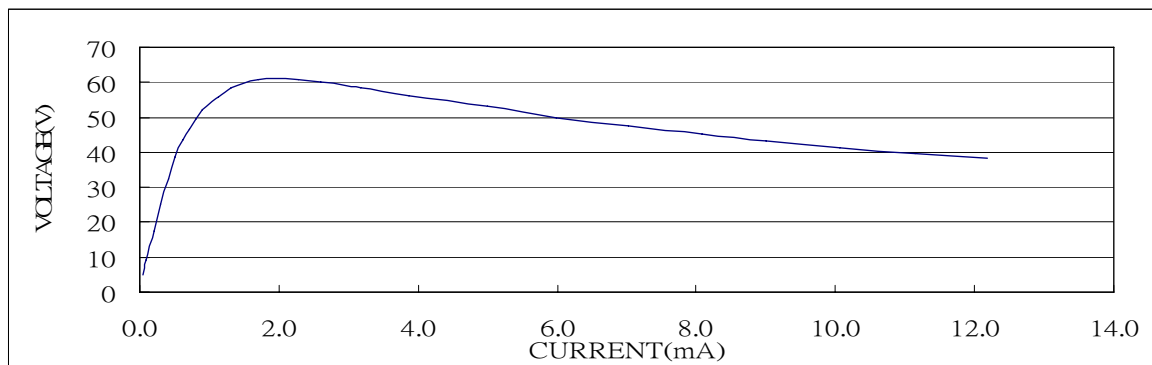
Style	Symbol	Condition	Specification
Resistance at 25°C	R25	T = 25 ± 0.1°C	100K Ω ± 3 %
B Constant	B	25°C to 85°C	4000 °K ± 1 %
Thermal Time Constant	T	T = 25 ± 0.1°C	Approx. 7.5 sec
Thermal Dissipation Constant	C	T = 25 ± 0.1°C	Approx. 4 mW/°C
Maximum Power Rating*	Pw	T = 25 ± 0.1°C	400 mW
Operation Temp. Range	--	--	-40°C ~ 125°C

*Maximum Power Rating = Thermal Dissipation Constant × (125°C-25°C)

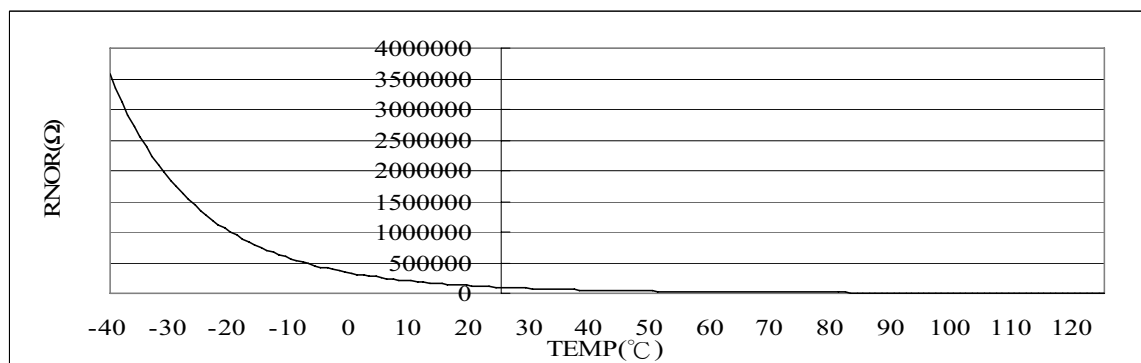
◆ RELIABILITY TEST

PERFORMANCE	TEST METHOD	APPRAISE
Life	MIL – STD – 202F , Method 108A 1000 hours at 125°C NTC WV intermittent	Within ±3 %
Humidity	MIL – STD – 202F , Method 103B 1000 hours at Temperature: 40°C Humidity: 95%	Within ±3 %
Thermal Shock	MIL – STD – 202F , Method 107 10 cycles, -40°C to +125°C	Within ±3 %
Solder ability	MIL – STD – 202F , Method 208 235°C for 2 seconds	95% min. coverage
Resistance to Soldering Heat	MIL – R – 55342D , Para 4.7.7 Soldered to test board at 260°C for 10 seconds	Within ±3 %
Bending Strength	JIS C 5202 6.1.4 Pressurizing rod at a rate at 1mm/sec for 1mm	Within ±3 %
Resistance to flexure of Substrate	JIS C 5202 6.2.1 Pressurizing force shall be 3kg (min.)	Over 3 kg
Insulation Resistance	MIL – STD – 202F , Method 302 DC 250V For 10 seconds	Over 1000MΩ
Dielectric Withstand Voltage	MIL – STD – 202F , Method 301 DC 250V For 10 seconds	Not Short

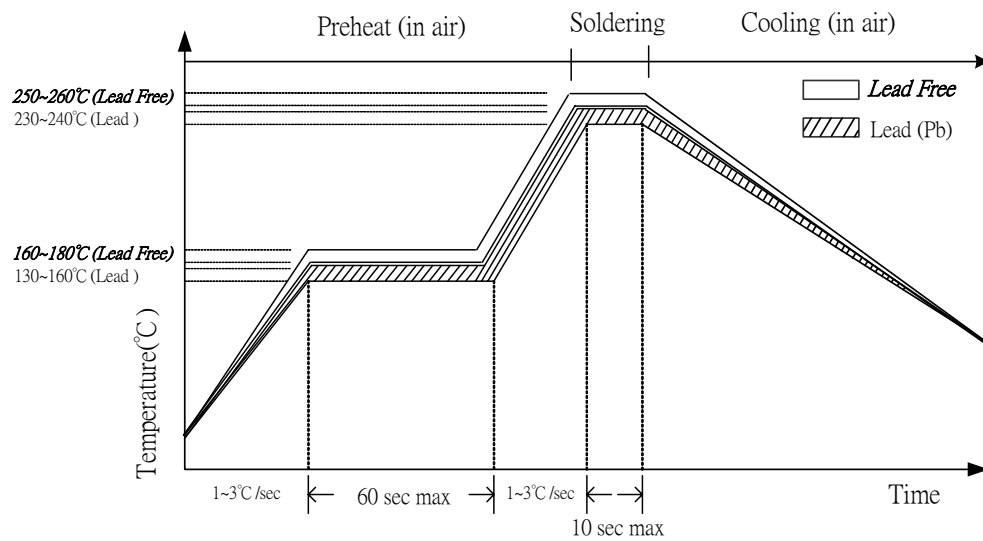
◆ VOLTAGE – CURRENT CURVE



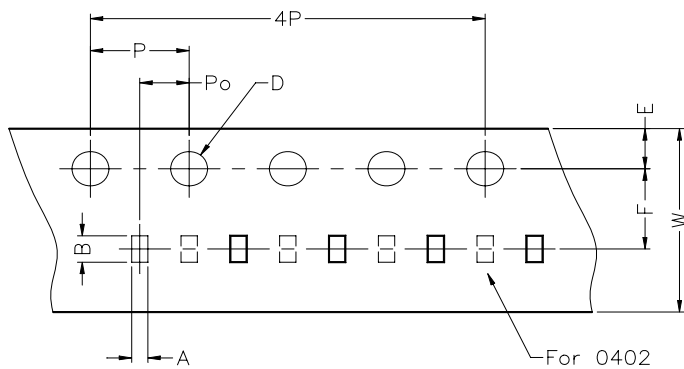
◆ RESISTANCE – TEMP CURVE



◆ REFLOW SOLDERING PROFILE



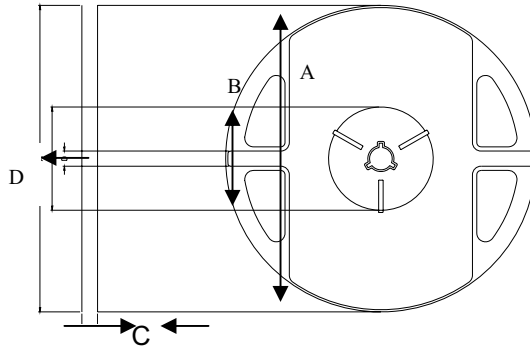
◆ TAPING DIMENSIONS



Unit: mm

Dimension	1206	0805	0603	0402
A	2.00 ± 0.05	1.50 ± 0.05	1.08 ± 0.05	0.66 ± 0.03
B	3.57 ± 0.05	2.30 ± 0.05	1.85 ± 0.05	1.15 ± 0.03
W	8.00 ± 0.02	8.00 ± 0.05	8.00 ± 0.05	8.00 ± 0.05
D	1.55 ± 0.05	1.50 ± 0.10	1.50 ± 0.10	1.50 ± 0.10
E	1.75 ± 0.10	1.75 ± 0.05	1.75 ± 0.05	1.75 ± 0.05
F	3.50 ± 0.05	3.50 ± 0.05	3.50 ± 0.05	3.50 ± 0.05
P	4.00 ± 0.10	4.00 ± 0.05	4.00 ± 0.05	4.00 ± 0.05
Po	2.00 ± 0.05	2.00 ± 0.05	2.00 ± 0.05	2.00 ± 0.05
4P	16.00 ± 0.05	16.00 ± 0.05	16.00 ± 0.05	16.00 ± 0.05

◆ REEL DIMENSIONS



Unit: mm

Item	A	B	C	D
Dimension	178.0 ±1.0	60.0 ±1.0	9.0 ±0.1	13.0 ±0.1

◆ ORDERING INFORMATION

SMD 02 300 J 3250 H
 ① ② ③ ④ ⑤ ⑥

1. Series SINLOON SMD Thermistor. (TH - Lead (Pb) ; TF – Lead Free)
2. Dimension : 06 (1206) , 05 (0805) , 03 (0603) , 02 (0402)
3. Resistance : 300 = 30 x 10 = 30 ohm
4. R Tolerance : F:±1% ; G:±2% ; H:±3% ; J:±5% ; K:±10%
5. B value : 3215, 3435, 3700, 7970, 4000, 4100,.....etc.
6. B Tolerance : F:±1% ; G:±2% ; H:±3%

- ACCESSORY : RESISTANCE-TEMPERATURE CHARACTERISTICS

Resistance-Temperature Characteristics

Part No. : **SMD02-300J 3250H** **R : 30 ohms ± 5%**
B : 3250 °K ± 3%

Temperature (°C)	Resistance (Ω)			Temp. Coef. (%/°C)	Resist. Tolerance (%)		Temp. Tolerance (°C)	
	MIN.	CENTER	MAX.		MIN.	MAX.	MIN.	MAX.
-40	441.503	505.844	578.113	-4.62	-12.72	14.29	-3.09	2.75
-39	422.133	482.981	551.219	-4.63	-12.60	14.13	-3.05	2.72
-38	403.566	461.096	525.509	-4.64	-12.48	13.97	-3.01	2.69
-37	385.776	440.156	500.945	-4.65	-12.35	13.81	-2.97	2.66
-36	368.739	420.130	477.487	-4.66	-12.23	13.65	-2.93	2.62
-35	352.431	400.987	455.093	-4.67	-12.11	13.49	-2.89	2.59
-34	336.824	382.694	433.724	-4.67	-11.99	13.33	-2.85	2.57
-33	321.896	365.221	413.341	-4.68	-11.86	13.18	-2.82	2.54
-32	307.622	348.536	393.904	-4.68	-11.74	13.02	-2.78	2.51
-31	293.976	332.608	375.376	-4.68	-11.61	12.86	-2.75	2.48
-30	280.936	317.408	357.719	-4.68	-11.49	12.70	-2.72	2.46
-29	268.476	302.906	340.897	-4.68	-11.37	12.54	-2.68	2.43
-28	256.575	289.073	324.873	-4.67	-11.24	12.38	-2.65	2.41
-27	245.210	275.881	309.613	-4.67	-11.12	12.23	-2.62	2.38
-26	234.358	263.304	295.084	-4.66	-10.99	12.07	-2.59	2.36
-25	223.999	251.313	281.253	-4.66	-10.87	11.91	-2.56	2.33
-24	214.111	239.885	268.088	-4.65	-10.74	11.76	-2.53	2.31
-23	204.675	228.993	255.560	-4.64	-10.62	11.60	-2.50	2.29
-22	195.670	218.614	243.637	-4.63	-10.50	11.45	-2.47	2.26
-21	187.079	208.725	232.293	-4.62	-10.37	11.29	-2.44	2.24
-20	178.882	199.303	221.501	-4.61	-10.25	11.14	-2.41	2.22
-19	171.062	190.328	211.233	-4.60	-10.12	10.98	-2.39	2.20
-18	163.603	181.777	201.466	-4.59	-10.00	10.83	-2.36	2.18
-17	156.488	173.633	192.175	-4.58	-9.87	10.68	-2.33	2.16
-16	149.701	165.875	183.337	-4.56	-9.75	10.53	-2.31	2.14
-15	143.227	158.485	174.930	-4.55	-9.63	10.38	-2.28	2.12
-14	137.053	151.446	166.933	-4.54	-9.50	10.23	-2.25	2.10
-13	131.163	144.742	159.326	-4.52	-9.38	10.08	-2.23	2.08
-12	125.546	138.355	152.090	-4.50	-9.26	9.93	-2.20	2.06
-11	120.188	132.272	145.207	-4.49	-9.14	9.78	-2.18	2.04
-10	115.077	126.477	138.659	-4.47	-9.01	9.63	-2.15	2.02
-9	110.202	120.957	132.429	-4.45	-8.89	9.48	-2.13	2.00
-8	105.551	115.697	126.502	-4.44	-8.77	9.34	-2.11	1.98

-7	101.114	110.687	120.863	-4.42	-8.65	9.19	-2.08	1.96
-6	96.880	105.912	115.497	-4.40	-8.53	9.05	-2.06	1.94
-5	92.841	101.363	110.390	-4.38	-8.41	8.91	-2.03	1.92
-4	88.987	97.027	105.530	-4.36	-8.29	8.76	-2.01	1.90
-3	85.308	92.896	100.904	-4.34	-8.17	8.62	-1.99	1.88
-2	81.798	88.957	96.501	-4.32	-8.05	8.48	-1.96	1.86
-1	78.447	85.203	92.309	-4.30	-7.93	8.34	-1.94	1.84
0	75.249	81.624	88.318	-4.28	-7.81	8.20	-1.92	1.82
1	72.195	78.211	84.517	-4.26	-7.69	8.06	-1.89	1.81
2	69.279	74.957	80.897	-4.24	-7.57	7.92	-1.87	1.79
3	66.495	71.853	77.449	-4.22	-7.46	7.79	-1.85	1.77
4	63.836	68.893	74.164	-4.20	-7.34	7.65	-1.82	1.75
5	61.296	66.069	71.035	-4.17	-7.22	7.52	-1.80	1.73
6	58.870	63.374	68.053	-4.15	-7.11	7.38	-1.78	1.71
7	56.552	60.803	65.211	-4.13	-6.99	7.25	-1.75	1.69
8	54.336	58.349	62.502	-4.11	-6.88	7.12	-1.73	1.67
9	52.219	56.007	59.919	-4.09	-6.76	6.98	-1.71	1.66
10	50.196	53.771	57.456	-4.06	-6.65	6.85	-1.69	1.64
11	48.261	51.635	55.107	-4.04	-6.54	6.72	-1.66	1.62
12	46.411	49.596	52.867	-4.02	-6.42	6.60	-1.64	1.60
13	44.642	47.648	50.730	-3.99	-6.31	6.47	-1.62	1.58
14	42.950	45.788	48.691	-3.97	-6.20	6.34	-1.60	1.56
15	41.331	44.010	46.744	-3.95	-6.09	6.21	-1.57	1.54
16	39.783	42.311	44.887	-3.93	-5.97	6.09	-1.55	1.52
17	38.300	40.686	43.113	-3.90	-5.86	5.96	-1.53	1.50
18	36.882	39.134	41.420	-3.88	-5.75	5.84	-1.51	1.48
19	35.524	37.649	39.802	-3.86	-5.65	5.72	-1.48	1.46
20	34.224	36.230	38.257	-3.83	-5.54	5.60	-1.46	1.44
21	32.979	34.871	36.781	-3.81	-5.43	5.48	-1.44	1.43
22	31.786	33.572	35.370	-3.79	-5.32	5.35	-1.41	1.41
23	30.644	32.329	34.022	-3.76	-5.21	5.24	-1.39	1.39
24	29.549	31.139	32.733	-3.74	-5.11	5.12	-1.37	1.37
25	28.500	30.000	31.500	-3.71	-5.00	5.00	-1.35	1.35
26	27.433	28.909	30.389	-3.69	-5.11	5.12	-1.39	1.38
27	26.413	27.865	29.323	-3.67	-5.21	5.23	-1.43	1.42
28	25.437	26.865	28.302	-3.64	-5.31	5.35	-1.47	1.46
29	24.503	25.906	27.322	-3.62	-5.42	5.46	-1.51	1.50
30	23.609	24.988	26.382	-3.60	-5.52	5.58	-1.55	1.53
31	22.753	24.108	25.480	-3.57	-5.62	5.69	-1.59	1.57
32	21.933	23.264	24.615	-3.55	-5.72	5.80	-1.63	1.61
33	21.148	22.456	23.784	-3.53	-5.82	5.92	-1.68	1.65

32	21.933	23.264	24.615	-3.55	-5.72	5.80	-1.63	1.61
33	21.148	22.456	23.784	-3.53	-5.82	5.92	-1.68	1.65
34	20.396	21.680	22.987	-3.50	-5.92	6.03	-1.72	1.69
35	19.676	20.936	22.221	-3.48	-6.02	6.14	-1.76	1.73
36	18.985	20.222	21.486	-3.46	-6.12	6.25	-1.81	1.77
37	18.323	19.537	20.780	-3.43	-6.21	6.36	-1.85	1.81
38	17.689	18.880	20.101	-3.41	-6.31	6.47	-1.90	1.85
39	17.080	18.249	19.449	-3.39	-6.41	6.58	-1.94	1.89
40	16.496	17.643	18.823	-3.36	-6.50	6.69	-1.99	1.93
41	15.936	17.061	18.220	-3.34	-6.59	6.79	-2.03	1.97
42	15.399	16.503	17.641	-3.32	-6.69	6.90	-2.08	2.02
43	14.883	15.966	17.084	-3.30	-6.78	7.01	-2.13	2.06
44	14.388	15.450	16.548	-3.27	-6.87	7.11	-2.17	2.10
45	13.913	14.954	16.033	-3.25	-6.96	7.22	-2.22	2.14
46	13.456	14.477	15.537	-3.23	-7.05	7.32	-2.27	2.19
47	13.018	14.019	15.060	-3.21	-7.14	7.42	-2.32	2.23
48	12.596	13.578	14.600	-3.18	-7.23	7.53	-2.36	2.27
49	12.191	13.154	14.158	-3.16	-7.32	7.63	-2.41	2.32
50	11.802	12.747	13.732	-3.14	-7.41	7.73	-2.46	2.36
51	11.428	12.354	13.322	-3.12	-7.50	7.83	-2.51	2.41
52	11.068	11.976	12.926	-3.09	-7.58	7.93	-2.56	2.45
53	10.722	11.613	12.545	-3.07	-7.67	8.03	-2.61	2.50
54	10.389	11.262	12.178	-3.05	-7.75	8.13	-2.67	2.54
55	10.069	10.925	11.824	-3.03	-7.84	8.23	-2.72	2.59
56	9.761	10.600	11.483	-3.01	-7.92	8.33	-2.77	2.63
57	9.464	10.288	11.154	-2.99	-8.00	8.43	-2.82	2.68
58	9.179	9.986	10.837	-2.96	-8.08	8.52	-2.88	2.73
59	8.904	9.695	10.531	-2.94	-8.17	8.62	-2.93	2.77
60	8.639	9.415	10.236	-2.92	-8.25	8.71	-2.98	2.82
61	8.384	9.145	9.951	-2.90	-8.33	8.81	-3.04	2.87
62	8.138	8.884	9.676	-2.88	-8.41	8.90	-3.09	2.92
63	7.901	8.633	9.410	-2.86	-8.48	9.00	-3.15	2.97
64	7.672	8.391	9.154	-2.84	-8.56	9.09	-3.20	3.02
65	7.452	8.157	8.906	-2.82	-8.64	9.18	-3.26	3.07
66	7.240	7.931	8.667	-2.80	-8.72	9.28	-3.32	3.12
67	7.035	7.713	8.436	-2.78	-8.79	9.37	-3.37	3.17
68	6.837	7.503	8.212	-2.76	-8.87	9.46	-3.43	3.22
69	6.647	7.299	7.996	-2.74	-8.94	9.55	-3.49	3.27
70	6.463	7.103	7.788	-2.72	-9.02	9.64	-3.55	3.32
71	6.285	6.913	7.586	-2.70	-9.09	9.73	-3.61	3.37
72	6.113	6.730	7.391	-2.68	-9.17	9.82	-3.67	3.43

75	5.633	6.217	6.843	-2.62	-9.38	10.08	-3.85	3.58
76	5.484	6.057	6.672	-2.60	-9.45	10.16	-3.91	3.64
77	5.340	5.902	6.507	-2.58	-9.52	10.25	-3.97	3.69
78	5.200	5.752	6.347	-2.56	-9.59	10.33	-4.04	3.75
79	5.066	5.607	6.192	-2.54	-9.66	10.42	-4.10	3.80
80	4.935	5.467	6.041	-2.52	-9.73	10.50	-4.17	3.86
81	4.809	5.332	5.896	-2.50	-9.80	10.59	-4.23	3.92
82	4.687	5.200	5.755	-2.48	-9.87	10.67	-4.30	3.97
83	4.569	5.073	5.619	-2.47	-9.93	10.75	-4.36	4.03
84	4.455	4.950	5.486	-2.45	-10.00	10.83	-4.43	4.09
85	4.345	4.831	5.358	-2.43	-10.06	10.91	-4.49	4.14
86	4.238	4.716	5.234	-2.41	-10.13	10.99	-4.56	4.20
87	4.134	4.604	5.113	-2.39	-10.19	11.07	-4.63	4.26
88	4.034	4.495	4.997	-2.37	-10.26	11.15	-4.70	4.32
89	3.937	4.390	4.883	-2.36	-10.32	11.23	-4.77	4.38
90	3.843	4.288	4.773	-2.34	-10.39	11.31	-4.84	4.44
91	3.752	4.190	4.667	-2.32	-10.45	11.39	-4.91	4.50
92	3.664	4.094	4.563	-2.30	-10.51	11.47	-4.98	4.56
93	3.578	4.001	4.463	-2.29	-10.57	11.54	-5.05	4.62
94	3.495	3.911	4.365	-2.27	-10.63	11.62	-5.12	4.69
95	3.415	3.823	4.271	-2.25	-10.69	11.69	-5.19	4.75
96	3.337	3.739	4.179	-2.23	-10.75	11.77	-5.27	4.81
97	3.261	3.656	4.089	-2.22	-10.81	11.84	-5.34	4.88
98	3.188	3.577	4.003	-2.20	-10.87	11.92	-5.42	4.94
99	3.116	3.499	3.919	-2.18	-10.93	11.99	-5.49	5.01
100	3.047	3.424	3.837	-2.17	-10.99	12.06	-5.57	5.07
101	2.980	3.351	3.757	-2.15	-11.05	12.14	-5.64	5.14
102	2.915	3.279	3.680	-2.13	-11.10	12.21	-5.72	5.20
103	2.852	3.210	3.605	-2.12	-11.16	12.28	-5.80	5.27
104	2.791	3.143	3.532	-2.10	-11.22	12.35	-5.88	5.34
105	2.731	3.078	3.461	-2.09	-11.27	12.42	-5.95	5.40
106	2.673	3.015	3.392	-2.07	-11.33	12.49	-6.03	5.47
107	2.617	2.953	3.324	-2.05	-11.38	12.56	-6.11	5.54
108	2.563	2.894	3.259	-2.04	-11.44	12.63	-6.20	5.61
109	2.510	2.835	3.196	-2.02	-11.49	12.70	-6.28	5.68
110	2.458	2.779	3.134	-2.01	-11.54	12.77	-6.36	5.75
111	2.408	2.724	3.073	-1.99	-11.60	12.84	-6.44	5.82
112	2.359	2.670	3.015	-1.98	-11.65	12.90	-6.53	5.89
113	2.312	2.618	2.958	-1.96	-11.70	12.97	-6.61	5.96
114	2.266	2.568	2.902	-1.95	-11.75	13.04	-6.70	6.04
115	2.221	2.518	2.848	-1.93	-11.81	13.10	-6.78	6.11

116	2.177	2.470	2.796	-1.92	-11.86	13.17	-6.87	6.18
117	2.135	2.424	2.744	-1.90	-11.91	13.23	-6.96	6.26
118	2.094	2.378	2.694	-1.89	-11.96	13.30	-7.04	6.33
119	2.054	2.334	2.646	-1.87	-12.01	13.36	-7.13	6.41
120	2.014	2.291	2.598	-1.86	-12.06	13.42	-7.22	6.49
121	1.976	2.249	2.552	-1.84	-12.10	13.49	-7.31	6.56
122	1.939	2.208	2.507	-1.83	-12.15	13.55	-7.40	6.64
123	1.903	2.168	2.463	-1.82	-12.20	13.61	-7.49	6.72
124	1.868	2.129	2.420	-1.80	-12.25	13.67	-7.59	6.80
125	1.834	2.091	2.378	-1.79	-12.30	13.73	-7.68	6.88