

Approval

Approved By:	Checked By:	Prepared By :

Approved By:	Examined By:	Tested By :

Company's Stamp	
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Approval No. : _____

Product : NTC THERMISTOR

UNIX's Part No. : SMD05-334 J 4250 H

Customer's Part No. : _____

Specifications : R₂₅ 330,000 Ω ± 5 %

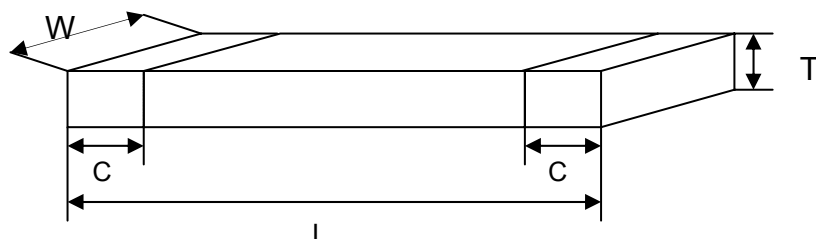
: B₂₅₋₈₅ 4250 °K ± 3 %

Date : 2007/01/10

Specification of SMD Chips Thermistor

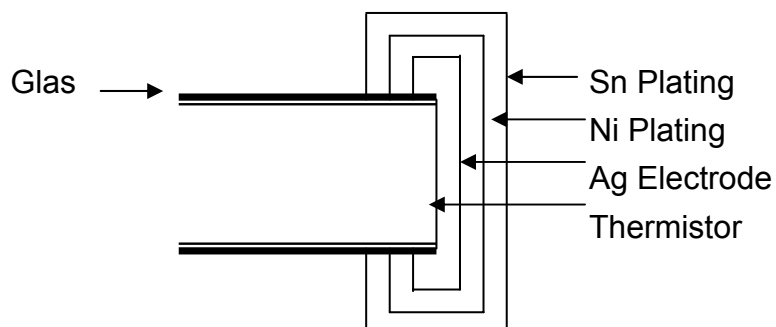
◆ PART NO. : SMD05-334 J 4250 H

◆ CHIP DIMENSIONS



Item	L(mm)	W(mm)	T(mm)	C(mm)
2125 (0805)	2.00 ±0.20	1.25 ±0.20	1.20±0.20	0.50±0.20

◆ CHIP STRUCTURE



◆ ELECTRICAL CHARACTERISTICS

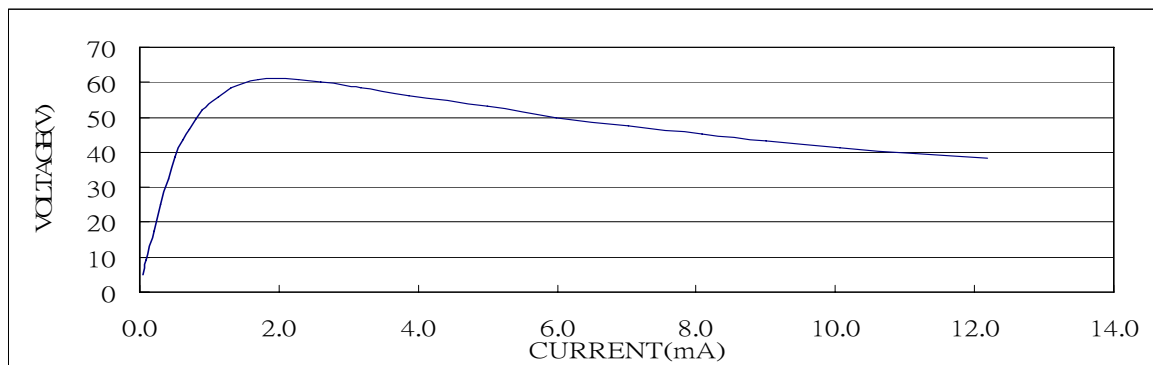
Style	Symbol	Condition	Specification
Resistance at 25°C	R25	T = 25 ± 0.1°C	330K Ω ± 5 %
B Constant	B	25°C to 85°C	4250 °K ± 3 %
Thermal Time Constant	T	T = 25 ± 0.1°C	Approx. 7.5 sec
Thermal Dissipation Constant	C	T = 25 ± 0.1°C	Approx. 4 mW/°C
Maximum Power Rating*	Pw	T = 25 ± 0.1°C	400 mW
Operation Temp. Range	--	--	-40°C ~ 125°C

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

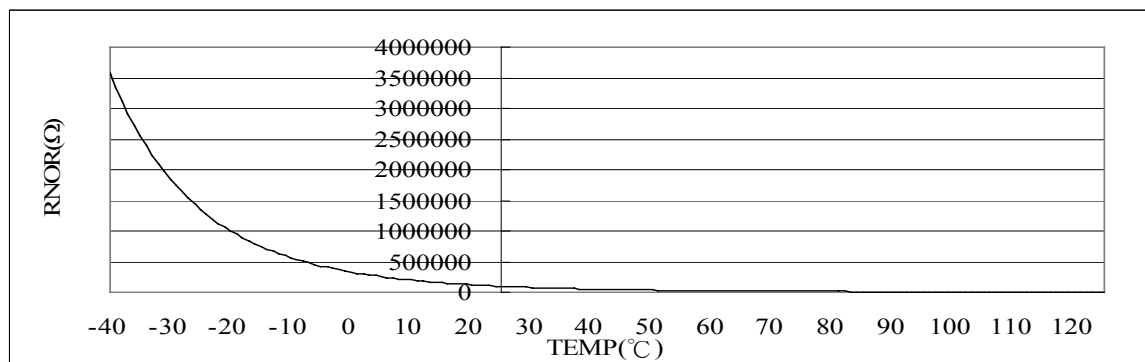
◆ RELIABILITY TEST

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 %
Solderability	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

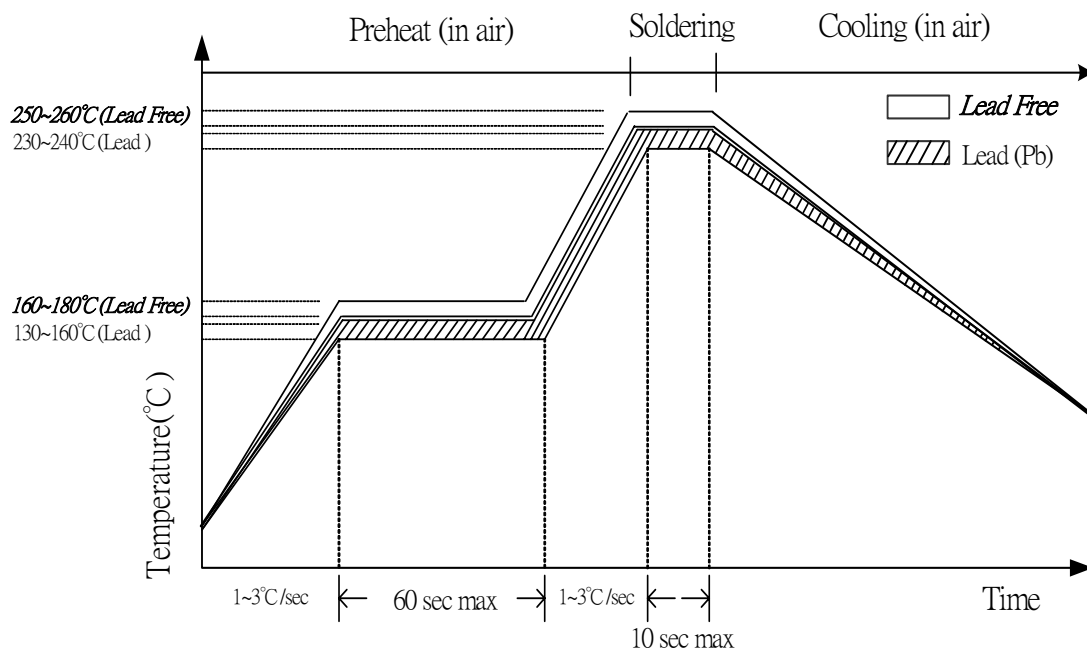
◆ VOLTAGE – CURRENT CURVE



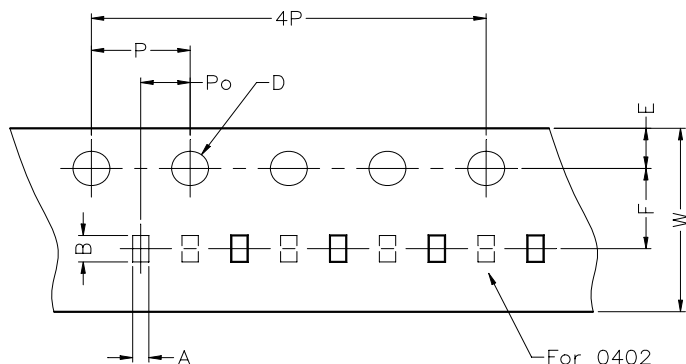
◆ RESISTANCE – TEMP CURVE



◆ REFLOW SOLDERING PROFILE



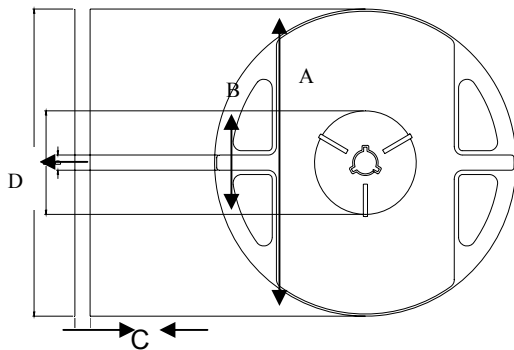
◆ TAPING DIMENSIONS



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 05 334 J 4250 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 : 334 = $330 \times 10^4 = 330,000$ ohm
4. R Tolerance : F:±1% ; G:±2% ; H:±3% ; J:±5% ; K:±10%
5. B value : 3215, 3435, 3700, 7970, 4000, 4100, 4250.....etc.
6. B Tolerance : F:±1% ; G:±2% ; H:±3%

● ACCESSORY : RESISTANCE-TEMPERATURE CHARACTERISTICS

Resistance-Temperature Characteristics

PART NO.: SMD05-334J 4250 H

R : 330,000 ohms ± 5%

B : 4250 °K ± 3%

Temperature	Resistance (Ω)			Temp. Coef.	Resist. Tolerance (%)		Temp. Tolerance (°C)	
(°C)	MIN.	CENTER	MAX.	(%/°C)	MIN.	MAX.	MIN.	MAX.
-40	14803465	17555648	20767454	-7.82	-15.68	18.29	-2.34	2.01
-39	13726752	16240784	19167218	-7.75	-15.48	18.02	-2.32	2.00
-38	12736531	15034350	17702356	-7.69	-15.28	17.75	-2.31	1.99
-37	11825238	13926637	16360460	-7.62	-15.09	17.48	-2.29	1.98
-36	10986023	12908868	15130339	-7.56	-14.90	17.21	-2.28	1.97
-35	10212678	11973106	14001898	-7.49	-14.70	16.94	-2.26	1.96
-34	9499569	11112169	12966020	-7.43	-14.51	16.68	-2.25	1.95
-33	8841581	10319549	12014465	-7.37	-14.32	16.42	-2.23	1.94
-32	8234069	9589350	11139783	-7.31	-14.13	16.17	-2.21	1.93
-31	7672810	8916221	10335230	-7.25	-13.95	15.91	-2.20	1.92
-30	7153961	8295308	9594699	-7.19	-13.76	15.66	-2.18	1.91
-29	6674024	7722198	8912654	-7.13	-13.57	15.42	-2.16	1.90
-28	6229813	7192884	8284075	-7.07	-13.39	15.17	-2.15	1.89
-27	5818423	6703718	7704405	-7.01	-13.21	14.93	-2.13	1.88
-26	5437205	6251381	7169504	-6.96	-13.02	14.69	-2.11	1.87
-25	5083739	5832848	6675610	-6.90	-12.84	14.45	-2.09	1.86
-24	4755817	5445365	6219302	-6.85	-12.66	14.21	-2.08	1.85
-23	4451421	5086417	5797466	-6.79	-12.48	13.98	-2.06	1.84
-22	4168702	4753711	5407265	-6.74	-12.31	13.75	-2.04	1.83
-21	3905971	4445152	5046115	-6.68	-12.13	13.52	-2.02	1.81
-20	3661682	4158826	4711658	-6.63	-11.95	13.29	-2.00	1.80
-19	3434417	3892982	4401744	-6.58	-11.78	13.07	-1.99	1.79
-18	3222875	3646020	4114409	-6.53	-11.61	12.85	-1.97	1.78
-17	3025864	3416471	3847858	-6.48	-11.43	12.63	-1.95	1.77
-16	2842291	3202995	3600450	-6.43	-11.26	12.41	-1.93	1.75
-15	2671150	3004358	3370685	-6.38	-11.09	12.19	-1.91	1.74
-14	2511516	2819434	3157189	-6.33	-10.92	11.98	-1.89	1.73
-13	2362542	2647184	2958704	-6.28	-10.75	11.77	-1.87	1.71
-12	2223446	2486658	2774076	-6.23	-10.58	11.56	-1.85	1.70
-11	2093507	2336981	2602248	-6.18	-10.42	11.35	-1.84	1.68
-10	1972065	2197350	2442250	-6.14	-10.25	11.15	-1.82	1.67
-9	1858508	2067026	2293190	-6.09	-10.09	10.94	-1.80	1.66

-8	1752274	1945328	2154252	-6.05	-9.92	10.74	-1.78	1.64
-7	1652843	1831630	2024682	-6.00	-9.76	10.54	-1.76	1.63
-6	1559737	1725355	1903789	-5.95	-9.60	10.34	-1.74	1.61
-5	1472511	1625972	1790937	-5.91	-9.44	10.15	-1.72	1.60
-4	1390758	1532988	1685539	-5.87	-9.28	9.95	-1.70	1.58
-3	1314100	1445952	1587057	-5.82	-9.12	9.76	-1.68	1.57
-2	1242186	1364446	1494993	-5.78	-8.96	9.57	-1.66	1.55
-1	1174694	1288084	1408887	-5.74	-8.80	9.38	-1.63	1.53
0	1111323	1216508	1328318	-5.70	-8.65	9.19	-1.61	1.52
1	1051796	1149388	1252895	-5.65	-8.49	9.01	-1.59	1.50
2	995857	1086420	1182256	-5.61	-8.34	8.82	-1.57	1.48
3	943265	1027321	1116069	-5.57	-8.18	8.64	-1.55	1.47
4	893801	971828	1054025	-5.53	-8.03	8.46	-1.53	1.45
5	847259	919701	995840	-5.49	-7.88	8.28	-1.51	1.43
6	803448	870713	941250	-5.45	-7.73	8.10	-1.49	1.42
7	762191	824657	890011	-5.42	-7.57	7.93	-1.46	1.40
8	723324	781339	841896	-5.38	-7.42	7.75	-1.44	1.38
9	686694	740579	796696	-5.34	-7.28	7.58	-1.42	1.36
10	652158	702212	754216	-5.30	-7.13	7.41	-1.40	1.34
11	619584	666081	714277	-5.26	-6.98	7.24	-1.37	1.33
12	588849	632044	676712	-5.23	-6.83	7.07	-1.35	1.31
13	559837	599966	641364	-5.19	-6.69	6.90	-1.33	1.29
14	532442	569723	608089	-5.15	-6.54	6.73	-1.31	1.27
15	506564	541198	576754	-5.12	-6.40	6.57	-1.28	1.25
16	482110	514284	547234	-5.08	-6.26	6.41	-1.26	1.23
17	458993	488881	519413	-5.05	-6.11	6.25	-1.24	1.21
18	437132	464894	493183	-5.01	-5.97	6.09	-1.21	1.19
19	416451	442236	468444	-4.98	-5.83	5.93	-1.19	1.17
20	396880	420826	445102	-4.95	-5.69	5.77	-1.17	1.15
21	378352	400588	423071	-4.91	-5.55	5.61	-1.14	1.13
22	360806	381450	402268	-4.88	-5.41	5.46	-1.12	1.11
23	344184	363347	382618	-4.85	-5.27	5.30	-1.09	1.09
24	328432	346216	364051	-4.81	-5.14	5.15	-1.07	1.07
25	313500	330000	346500	-4.78	-5.00	5.00	-1.05	1.05
26	298485	314644	330849	-4.75	-5.14	5.15	-1.08	1.08
27	284282	300098	316002	-4.72	-5.27	5.30	-1.12	1.12
28	270843	286315	301914	-4.69	-5.40	5.45	-1.16	1.15
29	258121	273249	288541	-4.66	-5.54	5.60	-1.20	1.19
30	246076	260860	275842	-4.62	-5.67	5.74	-1.24	1.23
31	234666	249109	263781	-4.59	-5.80	5.89	-1.28	1.26
32	223855	237959	252320	-4.56	-5.93	6.04	-1.32	1.30

33	213607	227376	241428	-4.53	-6.06	6.18	-1.36	1.34
34	203891	217329	231072	-4.50	-6.18	6.32	-1.40	1.37
35	194676	207786	221224	-4.48	-6.31	6.47	-1.44	1.41
36	185933	198720	211855	-4.45	-6.43	6.61	-1.49	1.45
37	177635	190104	202939	-4.42	-6.56	6.75	-1.53	1.48
38	169757	181913	194452	-4.39	-6.68	6.89	-1.57	1.52
39	162276	174125	186371	-4.36	-6.80	7.03	-1.61	1.56
40	155169	166716	178675	-4.33	-6.93	7.17	-1.66	1.60
41	148416	159667	171342	-4.31	-7.05	7.31	-1.70	1.64
42	141997	152958	164354	-4.28	-7.17	7.45	-1.74	1.67
43	135893	146571	157692	-4.25	-7.29	7.59	-1.78	1.71
44	130088	140488	151340	-4.23	-7.40	7.72	-1.83	1.75
45	124565	134693	145282	-4.20	-7.52	7.86	-1.87	1.79
46	119309	129172	139501	-4.17	-7.64	8.00	-1.92	1.83
47	114305	123909	133985	-4.15	-7.75	8.13	-1.96	1.87
48	109541	118892	128719	-4.12	-7.87	8.27	-2.01	1.91
49	105002	114107	123691	-4.10	-7.98	8.40	-2.05	1.95
50	100679	109542	118888	-4.07	-8.09	8.53	-2.10	1.99
51	96558	105187	114300	-4.04	-8.20	8.66	-2.14	2.03
52	92630	101030	109916	-4.02	-8.31	8.80	-2.19	2.07
53	88884	97061	105725	-4.00	-8.42	8.93	-2.23	2.11
54	85311	93271	101718	-3.97	-8.53	9.06	-2.28	2.15
55	81902	89650	97886	-3.95	-8.64	9.19	-2.33	2.19
56	78649	86191	94220	-3.92	-8.75	9.32	-2.37	2.23
57	75544	82885	90713	-3.90	-8.86	9.44	-2.42	2.27
58	72579	79725	87356	-3.88	-8.96	9.57	-2.47	2.31
59	69747	76703	84142	-3.85	-9.07	9.70	-2.52	2.35
60	67042	73813	81065	-3.83	-9.17	9.82	-2.57	2.40
61	64457	71048	78118	-3.81	-9.28	9.95	-2.61	2.44
62.	61986	68403	75295	-3.78	-9.38	10.08	-2.66	2.48
63	59624	65870	72590	-3.76	-9.48	10.20	-2.71	2.52
64	57365	63446	69997	-3.74	-9.59	10.32	-2.76	2.56
65	55204	61124	67511	-3.72	-9.69	10.45	-2.81	2.61
66	53136	58901	65127	-3.69	-9.79	10.57	-2.86	2.65
67	51158	56770	62841	-3.67	-9.89	10.69	-2.91	2.69
68	49264	54729	60647	-3.65	-9.99	10.81	-2.96	2.73
69	47451	52772	58543	-3.63	-10.08	10.94	-3.01	2.78
70	45714	50896	56523	-3.61	-10.18	11.06	-3.06	2.82
71	44051	49097	54584	-3.59	-10.28	11.18	-3.11	2.86
72	42457	47371	52722	-3.57	-10.37	11.30	-3.17	2.91
73	40929	45715	50934	-3.55	-10.47	11.41	-3.22	2.95

74	39465	44127	49216	-3.53	-10.56	11.53	-3.27	3.00
75	38061	42602	47566	-3.51	-10.66	11.65	-3.32	3.04
76	36715	41138	45980	-3.49	-10.75	11.77	-3.38	3.08
77	35424	39733	44455	-3.47	-10.85	11.88	-3.43	3.13
78	34185	38383	42989	-3.45	-10.94	12.00	-3.48	3.17
79	32996	37086	41580	-3.43	-11.03	12.12	-3.54	3.22
80	31854	35840	40224	-3.41	-11.12	12.23	-3.59	3.26
81	30759	34643	38920	-3.39	-11.21	12.35	-3.64	3.31
82	29707	33492	37665	-3.37	-11.30	12.46	-3.70	3.35
83	28696	32385	36457	-3.35	-11.39	12.57	-3.75	3.40
84	27725	31321	35294	-3.33	-11.48	12.69	-3.81	3.45
85	26793	30297	34175	-3.31	-11.57	12.80	-3.86	3.49
86	25896	29313	33097	-3.29	-11.66	12.91	-3.92	3.54
87	25034	28365	32059	-3.28	-11.74	13.02	-3.97	3.58
88	24206	27453	31059	-3.26	-11.83	13.13	-4.03	3.63
89	23409	26576	30095	-3.24	-11.91	13.24	-4.09	3.68
90	22643	25730	29166	-3.22	-12.00	13.35	-4.14	3.72
91	21905	24917	28271	-3.21	-12.09	13.46	-4.20	3.77
92	21196	24133	27408	-3.19	-12.17	13.57	-4.26	3.82
93	20513	23378	26576	-3.17	-12.25	13.68	-4.32	3.87
94	19856	22650	25773	-3.15	-12.34	13.79	-4.37	3.91
95	19223	21949	24999	-3.14	-12.42	13.89	-4.43	3.96
96	18614	21273	24252	-3.12	-12.50	14.00	-4.49	4.01
97	18027	20622	23531	-3.10	-12.58	14.11	-4.55	4.06
98	17462	19994	22836	-3.09	-12.66	14.21	-4.61	4.10
99	16917	19388	22164	-3.07	-12.74	14.32	-4.67	4.15
100	16392	18804	21516	-3.05	-12.82	14.42	-4.73	4.20
101	15886	18240	20890	-3.04	-12.90	14.53	-4.79	4.25
102	15398	17696	20285	-3.02	-12.98	14.63	-4.85	4.30
103	14928	17171	19701	-3.00	-13.06	14.74	-4.91	4.35
104	14474	16664	19137	-2.99	-13.14	14.84	-4.97	4.40
105	14037	16175	18592	-2.97	-13.22	14.94	-5.03	4.45
106	13615	15702	18065	-2.96	-13.29	15.04	-5.09	4.50
107	13207	15246	17555	-2.94	-13.37	15.15	-5.15	4.55
108	12814	14805	17063	-2.93	-13.45	15.25	-5.21	4.60
109	12435	14380	16587	-2.91	-13.52	15.35	-5.27	4.65
110	12069	13968	16126	-2.90	-13.60	15.45	-5.34	4.70
111	11715	13571	15681	-2.88	-13.67	15.55	-5.40	4.75
112	11374	13186	15250	-2.87	-13.75	15.65	-5.46	4.80
113	11044	12815	14833	-2.85	-13.82	15.75	-5.53	4.85
114	10725	12456	14430	-2.84	-13.89	15.85	-5.59	4.90

115	10417	12108	14039	-2.82	-13.97	15.95	-5.65	4.95
116	10120	11772	13661	-2.81	-14.04	16.04	-5.72	5.00
117	9832	11447	13295	-2.79	-14.11	16.14	-5.78	5.05
118	9554	11133	12941	-2.78	-14.18	16.24	-5.85	5.11
119	9285	10829	12598	-2.76	-14.26	16.33	-5.91	5.16
120	9025	10534	12265	-2.75	-14.33	16.43	-5.98	5.21
121	8774	10249	11943	-2.74	-14.40	16.53	-6.04	5.26
122	8531	9974	11631	-2.72	-14.47	16.62	-6.11	5.32
123	8295	9706	11329	-2.71	-14.54	16.72	-6.17	5.37
124	8068	9448	11036	-2.69	-14.61	16.81	-6.24	5.42
125	7847	9197	10752	-2.68	-14.67	16.91	-6.31	5.47