

ZIPPY TECHNOLOGY CORP
10F, No.50, MIN CHYUAN RD
XINDIAN DIST., NEW TAIPEI CITY, TAIWAN, R.O.C.

RELIABILITY PREDICTION STANDARD REPORT
(Sorted by Part Number)
MIL-HDBK-217F, Notice 2

PRED-FIRST (c) Reliability Prediction Program, BJM Engineering Services

Date: OCT-13-2014
End Item Title : PSS2 SERIES MTBF
End Item Part Number : PSS2-5A00V3V (RoHS)
PSS2-5A00V3V (RoHS) MTBF : 170,384
Module Title: ZIPPY TECHNOLOGY CORP
Module Part Number : PSS / MTBF
Power Unit Module : PSS-2A00V (RoHS)
Environmental Condition: GB
Ambient Temperature: 25°C

RELIABILITY MODELING OF REDUNDANT UNITS

Two Redundant Units:

Two identical units may be connected in parallel, each capable of supplying the total required output. If one unit fails and can be removed from the system (does not interfere with the operation of the other unit) , then the other unit supplies the required output. Using a constant failure rate, the following relations apply.

$$\text{Total Failure Rate}(F) = M \lambda / (3/2) + B \lambda = 7.762468 / (3/2) + 0.694086 = 5.869065$$

$M \lambda$ = Main power failure rate , $B \lambda$ = Back plane failure rate

$$\text{PSS2-5A00V3V (RoHS)(MTBF)} = F / 10^6 \text{Hrs} = 5.869065 / 10^6 = 170,384$$

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 (Sorted by Part Number)
 MIL - HDBK - 217F, Notice 2

Date : AUG-26-2009 Time : 09:03:28
 End Item Title : PSS SERIES MTBF
 End Item Part Number : PSS-2A00V (RoHS)
 PSS-2A00V (RoHS) MTBF : 128,825
 Module Title : ZIPPY TECHNOLOGY CORP
 Module Part Number : PSS / MTBF
 Module Reference Designation : PSS
 Environmental Condition : GB
 Ambient Temperature: 25°C

PSS-2A00V (RoHS)

ITEM #	Part Number	Ref Desig	Qual Level	Quant	Individual Failure Rate (F/10 ⁶ Hrs)	Total Failure Rate (F/10 ⁶ Hrs)
1	B102130002	BOM	NMIL	1	0.074349	0.074349
2	B102270003	BOM	NMIL	1	0.128027	0.128027
3	B102330003	BOM	NMIL	1	0.132621	0.132621
4	B102330005	BOM	NMIL	1	0.125731	0.125731
5	B102720004	BOM	NMIL	1	0.069564	0.069564
6	B102840007	BOM	NMIL	1	0.190893	0.190893
7	B103180004	BOM	NMIL	1	1.222003	1.222003
8	B103180007	BOM	NMIL	1	0.044939	0.044939
9	B200000001	BOM	SPECIAL	1	0.094935	0.094935
10	B200000296	BOM	SPECIAL	1	0.094935	0.094935
11	B200000332	BOM	SPECIAL	2	0.094935	0.189870
12	B200000333	BOM	SPECIAL	1	0.094935	0.094935
13	B200000364	BOM	SPECIAL	1	0.094935	0.094935
14	B200010052	BOM	NMIL	5	0.000798	0.003990
15	B200010091	BOM	NMIL	1	0.000798	0.000798
16	B200010098	BOM	NMIL	1	0.000798	0.000798
17	B200010105	BOM	NMIL	7	0.031398	0.219786
18	B200010109	BOM	NMIL	9	0.000798	0.007182
19	B200010112	BOM	NMIL	6	0.031398	0.188388
20	B200020016	BOM	NMIL	1	0.005156	0.005156
21	B200020017	BOM	NMIL	1	0.005156	0.005156
22	B200020020	BOM	NMIL	2	0.005156	0.010312
23	B200020021	BOM	NMIL	1	0.005156	0.005156
24	B200030038	BOM	NMIL	1	0.018136	0.018136

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25	B200040053	BOM	NMIL	1	0.016111	0.016111
26	B200040065	BOM	NMIL	1	0.005967	0.005967
27	B200040072	BOM	NMIL	2	0.005967	0.011934
28	B200040073	BOM	NMIL	14	0.005967	0.083538
29	B200040083	BOM	NMIL	1	0.016111	0.016111
30	B200040085	BOM	NMIL	1	0.016111	0.016111
31	B200050024	BOM	NMIL	1	0.005218	0.005218
32	B200050032	BOM	NMIL	7	0.005218	0.036526
33	B200050070	BOM	NMIL	2	0.005218	0.010436
34	B200060009	BOM	NMIL	1	0.014607	0.014607
35	B200070008	BOM	NMIL	2	0.008352	0.016703
36	B200090006	BOM	NMIL	1	0.018095	0.018095
37	B200110001	BOM	NMIL	1	0.004650	0.004650
38	B200110006	BOM	NMIL	1	0.004650	0.004650
39	B200110016	BOM	NMIL	6	0.004650	0.027900
40	B200110040	BOM	NMIL	7	0.004650	0.032550
41	B200110042	BOM	NMIL	4	0.004650	0.018600
42	B200110095	BOM	NMIL	14	0.004650	0.065100
43	B200110120	BOM	NMIL	4	0.004650	0.018600
44	B200110123	BOM	NMIL	2	0.004650	0.009300
45	B200110172	BOM	NMIL	6	0.004650	0.027900
46	B200110176	BOM	NMIL	2	0.004650	0.009300
47	B200110192	BOM	NMIL	2	0.004650	0.009300
48	B200110202	BOM	NMIL	1	0.004650	0.004650
49	B200110223	BOM	NMIL	3	0.005115	0.015345
50	B200110227	BOM	NMIL	5	0.004650	0.023250
51	B200110279	BOM	NMIL	1	0.004650	0.004650
52	B200110282	BOM	NMIL	3	0.004650	0.013950
53	B200110303	BOM	NMIL	4	0.005115	0.020460
54	B200110311	BOM	NMIL	1	0.004650	0.004650
55	B200110313	BOM	NMIL	1	0.004650	0.004650
56	B200110441	BOM	NMIL	1	0.004650	0.004650
57	B200110490	BOM	NMIL	1	0.004650	0.004650
58	B200110493	BOM	NMIL	3	0.005115	0.015345
59	B200110494	BOM	NMIL	3	0.004650	0.013950
60	B200110502	BOM	NMIL	1	0.004650	0.004650
61	B200110503	BOM	NMIL	1	0.005115	0.005115
62	B200110506	BOM	NMIL	3	0.004650	0.013950
63	B200110508	BOM	NMIL	1	0.004650	0.004650
64	B200110523	BOM	NMIL	1	0.004650	0.004650
65	B200110525	BOM	NMIL	1	0.004650	0.004650
66	B200110530	BOM	NMIL	1	0.004650	0.004650
67	B200110551	BOM	NMIL	1	0.004650	0.004650
68	B200110608	BOM	NMIL	3	0.007440	0.022320

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69	B200110686	BOM	NMIL	1	0.004650	0.004650
70	B200110687	BOM	NMIL	1	0.004650	0.004650
71	B200120170	BOM	NMIL	1	0.010780	0.010780
72	B200120171	BOM	NMIL	1	0.006870	0.006870
73	B200160022	BOM	NMIL	1	0.065000	0.065000
74	B200170021	BOM	NMIL	3	0.005156	0.015468
75	B200170031	BOM	NMIL	3	0.005156	0.015468
76	B200180075	BOM	N/A	2	0.008923	0.017846
77	B200190024	BOM	N/A	1	0.015889	0.015889
78	B200190035	BOM	N/A	1	0.015889	0.015889
79	B200200012	BOM	N/A	1	0.009203	0.009203
80	B200200017	BOM	N/A	12	0.011856	0.142272
81	B200200018	BOM	N/A	7	0.011856	0.082992
82	B200200053	BOM	N/A	4	0.014056	0.056224
83	B200200057	BOM	N/A	1	0.018108	0.018108
84	B200200060	BOM	N/A	1	0.012930	0.012930
85	B200200062	BOM	N/A	2	0.007791	0.015582
86	B200200069	BOM	N/A	1	0.006575	0.006575
87	B200200096	BOM	N/A	4	0.008147	0.032588
88	B200200100	BOM	N/A	1	0.021459	0.021459
89	B200220010	BOM	N/A	1	0.002761	0.002761
90	B200220021	BOM	N/A	1	0.002337	0.002337
91	B200220028	BOM	N/A	3	0.002647	0.007941
92	B200230226	BOM	N/A	2	0.022233	0.044466
93	B200230277	BOM	N/A	1	0.041493	0.041493
94	B200230337	BOM	N/A	1	0.022047	0.022047
95	B200230338	BOM	N/A	1	0.029130	0.029130
96	B200230356	BOM	N/A	4	0.044090	0.176360
97	B200230381	BOM	N/A	2	0.047121	0.094242
98	B200230383	BOM	N/A	3	0.150432	0.451296
99	B200260219	BOM	NMIL	1	0.088051	0.088051
100	B200260278	BOM	NMIL	1	0.088051	0.088051
101	B200260279	BOM	NMIL	2	0.088051	0.176102
102	B200260283	BOM	NMIL	1	0.088051	0.088051
103	B200280012	BOM	NMIL	1	0.015958	0.015958
104	B200290011	BOM	NMIL	2	0.013740	0.027480
105	B200300219	BOM	NMIL	1	0.003845	0.003845
106	B200300248	BOM	NMIL	1	0.003845	0.003845
107	B200300297	BOM	NMIL	1	0.026144	0.026144
108	B210140023	BOM	KNOWNFR	1	2.070549	2.070549
109	B210160025	BOM	N/A	1	0.010000	0.010000
110	B210191056	N/A	STANDARD	1	0.020588	0.020588

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Total Failure Rate (F/10 ⁶ Hrs) :	7.762468
Mean Time (in hours) Between Failures (MTBF) :	128,825