



ZIPPY TECHNOLOGY CORP.

Mean Time Between Failures PREDICTION REPORT

MIL-HDBK-217F, Notice 2

Product : Redundant Switching Power Supply

Model/Type : G1T2-5120V0H(RoHS)

Approval By		正式 資料 用 章	
Prepared By			

ZIPPY TECHNOLOGY CORP.
6F.,NO.48,WUQUAN RD.,
WUGU 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: FEB-19-2021
End Item Title : G1T2 SERIES MTBF
End Item Part Number : G1T2-5120V0H(RoHS)
G1T2-5120V0H(RoHS) MTBF : 589,052
Module Title: ZIPPY TECHNOLOGY CORP
Module Part Number : G1T / MTBF
Power Unit Module : G1T-1120V(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.

$$\text{Total Failure Rate}(F) = M\lambda^{(3/2)} + B\lambda = 1.709518/(3/2) + 0.557963 = 1.697642$$

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

$$G1T2-5120V0H(RoHS)(MTBF) = F/10^6 \text{ (Hrs)} = 1/(1.697642/10^6) = 589,052$$

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

Date : FEB-19-2021 Time : 16:47:28
End Item Title : G1T SERIES MTBF
End Item Part Number : G1T-1120V(RoHS)
G1T-1120V(RoHS) MTBF : 584,960
Module Title : ZIPPY TECHNOLOGY CORP
Module Part Number : G1T / MTBF
Module Reference Designation : G1T
Environmental Condition : GB
Ambient Temperature: 25°C

G1T-1120V(RoHS)

ITEM #	Part Number	Ref Desig	Qual Level	Quant	Individual Failure Rate (F/10 ⁶ Hrs)	Total Failure Rate (F/10 ⁶ Hrs)
1	B106720002	BOM	SPECIAL	1	0.131184	0.131184
2	B106720003	BOM	SPECIAL	1	0.290798	0.290798
3	B106720004	BOM	SPECIAL	1	0.208412	0.208412
4	B200000327	BOM	NMIL	1	0.004902	0.004902
5	B200000521	BOM	NMIL	1	0.005806	0.005806
6	B200010022	BOM	NMIL	1	0.000843	0.000843
7	B200010109	BOM	NMIL	5	0.000627	0.003135
8	B200010167	BOM	NMIL	1	0.000648	0.000648
9	B200010192	BOM	NMIL	1	0.009694	0.009694
10	B200010252	BOM	NMIL	2	0.072168	0.144336
11	B200010253	BOM	NMIL	1	0.065527	0.065527
12	B200010257	BOM	NMIL	2	0.073390	0.146780
13	B200010270	BOM	NMIL	1	0.000652	0.000652
14	B200010306	BOM	NMIL	1	0.002333	0.002333
15	B200020020	BOM	NMIL	2	0.000241	0.000482
16	B200020024	BOM	NMIL	1	0.000414	0.000414
17	B200020046	BOM	NMIL	1	0.000755	0.000755
18	B200030063	BOM	NMIL	2	0.001906	0.003812
19	B200030107	BOM	NMIL	1	0.001906	0.001906
20	B200040073	BOM	NMIL	8	0.011646	0.093168
21	B200040125	BOM	NMIL	1	0.003751	0.003751
22	B200040167	BOM	NMIL	1	0.011646	0.011646
23	B200050069	BOM	NMIL	2	0.003013	0.006026
24	B200050084	BOM	NMIL	1	0.003013	0.003013

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25	B200060025	BOM	NMIL	1	0.003026	0.003026
26	B200090005	BOM	NMIL	1	0.001476	0.001476
27	B200110042	BOM	NMIL	5	0.002210	0.011050
28	B200110120	BOM	NMIL	2	0.002896	0.005792
29	B200110123	BOM	NMIL	2	0.002210	0.004420
30	B200110126	BOM	NMIL	1	0.002032	0.002032
31	B200110158	BOM	NMIL	3	0.003039	0.009117
32	B200110223	BOM	NMIL	3	0.003039	0.009117
33	B200110235	BOM	NMIL	2	0.002896	0.005792
34	B200110261	BOM	NMIL	1	0.002210	0.002210
35	B200110279	BOM	NMIL	1	0.002210	0.002210
36	B200110293	BOM	NMIL	2	0.003039	0.006078
37	B200110317	BOM	NMIL	5	0.002896	0.014480
38	B200110325	BOM	NMIL	1	0.002896	0.002896
39	B200110488	BOM	NMIL	1	0.002210	0.002210
40	B200110490	BOM	NMIL	1	0.002210	0.002210
41	B200110503	BOM	NMIL	1	0.002210	0.002210
42	B200110512	BOM	NMIL	1	0.002210	0.002210
43	B200110554	BOM	NMIL	1	0.002210	0.002210
44	B200110564	BOM	NMIL	2	0.002210	0.004420
45	B200110573	BOM	NMIL	3	0.002319	0.006957
46	B200110695	BOM	NMIL	3	0.003716	0.011148
47	B200110846	BOM	NMIL	1	0.002126	0.002126
48	B200120129	BOM	NMIL	1	0.007505	0.007505
49	B200160011	BOM	NMIL	1	0.008611	0.008611
50	B200170062	BOM	NMIL	2	0.002840	0.005680
51	B200180103	BOM	NMIL	1	0.001845	0.001845
52	B200180107	BOM	NMIL	1	0.001845	0.001845
53	B200190072	BOM	NMIL	1	0.010940	0.010940
54	B200190098	BOM	NMIL	1	0.004493	0.004493
55	B200200092	BOM	NMIL	11	0.009620	0.105820
56	B200200131	BOM	NMIL	2	0.003089	0.006178
57	B200200204	BOM	NMIL	1	0.007306	0.007306
58	B200200208	BOM	NMIL	1	0.006356	0.006356
59	B200200218	BOM	NMIL	2	0.009620	0.019240
60	B200200224	BOM	NMIL	1	0.004199	0.004199
61	B200200225	BOM	NMIL	1	0.007820	0.007820
62	B200220010	BOM	NMIL	1	0.003943	0.003943
63	B200220073	BOM	NMIL	1	0.002605	0.002605
64	B200220082	BOM	NMIL	5	0.001208	0.006040

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ITEM #	Part Number	Ref Desig	Qual Level	Quant	Individual Failure Rate (F/10 ⁶ Hrs)	Total Failure Rate (F/10 ⁶ Hrs)
65	B200230223	BOM	NMIL	1	0.001386	0.001386
66	B200230494	BOM	NMIL	1	0.016944	0.016944
67	B200230595	BOM	NMIL	1	0.016854	0.016854
68	B200230596	BOM	NMIL	1	0.001978	0.001978
69	B200230597	BOM	NMIL	1	0.010044	0.010044
70	B200230598	BOM	NMIL	1	0.001661	0.001661
71	B200240017	BOM	NMIL	1	0.004919	0.004919
72	B200250061	BOM	NMIL	1	0.000231	0.000231
73	B200260476	BOM	NMIL	1	0.000219	0.000219
74	B200260477	BOM	NMIL	2	0.000251	0.000502
75	B200280012	BOM	NMIL	1	0.000623	0.000623
76	B200290015	BOM	NMIL	2	0.011159	0.022318
77	B200300557	BOM	NMIL	1	0.101463	0.101463
78	B200310019	BOM	NMIL	1	0.005232	0.005232
79	B200370081	BOM	NMIL	1	0.000962	0.000962
80	B210060154	BOM	NMIL	1	0.024396	0.024396
81	B210160065	BOM	NMIL	1	0.010000	0.010000
82	B210193342	BOM	NMIL	1	0.023940	0.023940

Total Failure Rate (F/10⁶Hrs) : 1.709518
Mean Time (in hours) Between Failures (MTBF) : **584,960**