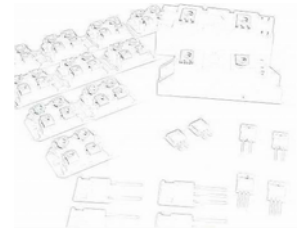


Reliability Experiment Summary SBD, MBR20100CT (20A, 100V, TO-220AB)

January 2007

Date Code: AC0644

NO	TEST ITEM	TEST CONDITION	DURATION	FAILURE RATE	PARAMETER	X BAR	S DEV	MAX	MIN	
1	OPERATING LIFE	IF = 10A @ Ta = 25°C	72 HOURS	0 / 22	INITIAL	V _F (V)	0.775	0.005	0.78	0.77
						V _B (V)	122.79	4.152	128.5	114.8
						I _R (μA)	4.07	0.773	5.5	3.2
					FINAL	V _F (V)	0.773	0.005	0.78	0.77
						V _B (V)	121.57	3.787	125.8	114.3
						I _R (μA)	5.1	1.059	6.7	3.8
2	HIGH TEMPERATURE REVERSE BIAS	V _B = 80V @ Ta = 125°C	72 HOURS	0 / 22	INITIAL	V _F (V)	0.782	0.007	0.8	0.77
						V _B (V)	122.1	4.768	127.8	114.4
						I _R (μA)	2.857	0.568	3.8	2.1
					FINAL	V _F (V)	0.779	0.003	0.78	0.77
						V _B (V)	120.643	4.403	125.1	113.5
						I _R (μA)	2.986	0.683	3.8	1.9
3	PRESSURE COOKER	Ta = 121°C P = 15PSIG	8 HOURS	0 / 22	INITIAL	V _F (V)	0.78	0.005	0.794	0.769
						V _B (V)	124.205	2.569	127.6	116.5
						I _R (μA)	3.332	0.42	4	2.7
					FINAL	V _F (V)	0.784	0.007	0.805	0.774
						V _B (V)	122.286	4.692	127.6	109.5
						I _R (μA)	3.486	0.582	4.6	2.7



Reliability Experiment Summary

SBD, MBR20100CT (20A, 100V, TO-220AB)

NO	TEST ITEM	TEST CONDITION	DURATION	FAILURE RATE	PARAMETER	X BAR	S DEV	MAX	MIN	
4	FORWARD SURGE	8.3ms HALF-SINE SUPERIMPOSED, Duration = 1 SHOT	IFSM=150 A	0 / 22	INITIAL	V _F (V)	0.777	0.005	0.783	0.765
						V _B (V)	121.333	1.935	125	116
						I _R (μA)	3.867	0.591	5.2	3.1
					FINAL	V _F (V)	0.779	0.009	0.806	0.767
						V _B (V)	119.81	3.486	123	110
						I _R (μA)	5.01	0.912	6.8	3.8
5	TEMPERATURE CYCLING	AIR TO AIR 100 °C / 30MIN -10 °C / 30MIN	8 CYCLES	0 / 22	INITIAL	V _F (V)	0.78	0.007	0.81	0.77
						V _B (V)	124.086	2.621	127.8	116
						I _R (μA)	2.473	0.389	3.3	2
					FINAL	V _F (V)	0.783	0.006	0.81	0.78
						V _B (V)	122.068	4.509	127.4	109.3
						I _R (μA)	2.591	0.564	3.9	2.1

Sales Representatives:

U.S.A. -

113 Barksdale Professional
Center in the City of Newark,
County of New Castle, Delaware
e-mail: sgc@sirectsemi.com

China -

Room.708,Building,23,Fenherili
Garden Renmingnan Rd.,
Longhua district, Shenzhen
e-mail: silicontek@ic37.com

Taiwan -

5F, NO. 316, Chongyang Rd.,
Nangang Chiu, Taipei, Taiwan
e-mail: se@sirectsemi.com

Thailand -

29/123 F.8 Siam Condo. Rama 9
Rd., Huaykwang, Bangkok
10310, Thailand
e-mail: th@sirectsemi.com