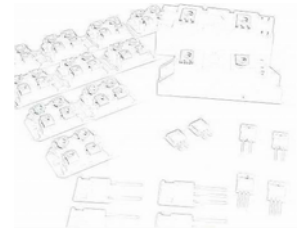


## Reliability Experiment Summary SBD, MBR10100CT (10A, 100V, TO-220AB)

January 2007

Date Code: AJ0648

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 <sub>F</sub> (V)	0.818	0.008	0.833	0.814
						V <sub>B</sub> (V)	121.56	0.997	123.5	120.8
						I <sub>R</sub> (μA)	3.14	0.102	3.3	3.0
					FINAL	V <sub>F</sub> (V)	0.818	0.008	0.834	0.812
						V <sub>B</sub> (V)	121.84	0.674	122.7	121.0
						I <sub>R</sub> (μA)	3.2	0.352	3.7	2.8
2	HIGH TEMPERATURE REVERSE BIAS	V <sub>B</sub> = 80V @ Ta = 125°C	72 HOURS	0 / 22	INITIAL	V <sub>F</sub> (V)	0.827	0.004	0.831	0.821
						V <sub>B</sub> (V)	122.42	0.536	122.9	121.6
						I <sub>R</sub> (μA)	2.57	0.614	3.6	2.1
					FINAL	V <sub>F</sub> (V)	0.820	0.004	0.825	0.814
						V <sub>B</sub> (V)	121.2	1.267	123.1	120.0
						I <sub>R</sub> (μA)	3.87	0.858	5.3	3.2
3	PRESSURE COOKER	Ta = 121°C P = 15PSIG	8 HOURS	0 / 22	INITIAL	V <sub>F</sub> (V)	0.818	0.008	0.834	0.812
						V <sub>B</sub> (V)	121.84	0.674	122.3	121.0
						I <sub>R</sub> (μA)	3.2	0.352	3.7	2.8
					FINAL	V <sub>F</sub> (V)	0.820	0.006	0.829	0.814
						V <sub>B</sub> (V)	122.34	0.641	123.4	121.6
						I <sub>R</sub> (μA)	3.6	0.179	3.8	3.4



## Reliability Experiment Summary SBD, MBR10100CT (10A, 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 <sub>F</sub> (V)	0.829	0.009	0.843	0.814
						V <sub>B</sub> (V)	120.72	0.768	122.1	119.8
						I <sub>R</sub> (μA)	1.86	0.08	2.0	1.8
					FINAL	V <sub>F</sub> (V)	0.831	0.005	0.841	0.826
						V <sub>B</sub> (V)	120.54	0.824	122.1	119.8
						I <sub>R</sub> (μA)	2.08	0.075	2.2	2.0
5	TEMPERATURE CYCLING	AIR TO AIR 100 °C / 30MIN -10 °C / 30MIN	8 CYCLES	0 / 22	INITIAL	V <sub>F</sub> (V)	0.820	0.006	0.829	0.814
						V <sub>B</sub> (V)	122.34	0.641	123.4	121.6
						I <sub>R</sub> (μA)	3.6	0.179	3.8	3.4
					FINAL	V <sub>F</sub> (V)	0.827	0.003	0.829	0.821
						V <sub>B</sub> (V)	122.2	0.657	122.9	121.3
						I <sub>R</sub> (μA)	2.8	0.710	3.7	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](mailto:sgc@sirectsemi.com)

**China -**  
Room.708,Building,23,Fenherili  
Garden Renmingnan Rd.,  
Longhua district, Shenzhen  
e-mail: [silicontek@ic37.com](mailto:silicontek@ic37.com)

**Taiwan -**  
5F, NO. 316, Chongyang Rd.,  
Nangang Chiu, Taipei, Taiwan  
e-mail: [se@sirectsemi.com](mailto:se@sirectsemi.com)

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