

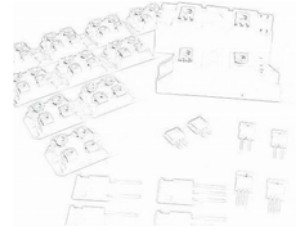
## Reliability Experiment Summary

### SBD, MBR20U150CTH (20A, 150V, TO-220AB, Halogen-Free)

June 2012

Date Code: LS1214

NO	TEST ITEM	TEST CONDITION	DURATION	FAILURE RATE	PARAMETER	AVG	STD	MAX	MIN	
1	OPERATING LIFE	IF = 10A @ Ta = 25°C	72 HOURS	0 / 22	INITIAL	V <sub>F</sub> (V)	0.76868	1.2492	0.7700	0.7670
						V <sub>B</sub> (V)	186.77	0.6613	187.50	185.00
						I <sub>R</sub> (μA)	0.2150	0.0958	0.6400	0.1800
					FINAL	V <sub>F</sub> (V)	0.76836	1.3290	0.7700	0.7670
						V <sub>B</sub> (V)	186.72	1.1928	187.70	182.50
						I <sub>R</sub> (μA)	0.3591	0.7061	3.5200	0.1900
2	HIGH TEMPERATURE REVERSE BIAS	V <sub>B</sub> = 120V @ Ta = 125°C	72 HOURS	0 / 22	INITIAL	V <sub>F</sub> (V)	0.7690	0.9258	0.7700	0.7670
						V <sub>B</sub> (V)	186.23	1.5354	187.50	181.40
						I <sub>R</sub> (μA)	0.2023	0.0258	0.2900	0.1800
					FINAL	V <sub>F</sub> (V)	0.7690	0.7559	0.7700	0.7670
						V <sub>B</sub> (V)	186.60	1.1210	188.00	183.10
						I <sub>R</sub> (μA)	0.2200	0.0249	0.3000	0.1900
3	PRESSURE COOKER	Ta = 121°C P = 15PSIG	8 HOURS	0 / 22	INITIAL	V <sub>F</sub> (V)	0.76995	1.3266	0.7720	0.7670
						V <sub>B</sub> (V)	186.80	1.3586	189.00	184.30
						I <sub>R</sub> (μA)	0.1909	0.0193	0.2600	0.1800
					FINAL	V <sub>F</sub> (V)	0.76977	1.0204	0.7720	0.7690
						V <sub>B</sub> (V)	186.76	1.2062	188.90	184.70
						I <sub>R</sub> (μA)	0.2091	0.0329	0.3300	0.1800



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NO	TEST ITEM	TEST CONDITION	DURATION	FAILURE RATE	PARAMETER	AVG	STD	MAX	MIN	
4	FORWARD SURGE	8.3ms HALF-SINE SUPERIMPOSED, Duration = 1 SHOT	IFSM=150 A	0 / 22	INITIAL	V <sub>F</sub> (V)	0.7695	0.9129	0.7720	0.7670
						V <sub>B</sub> (V)	187.57	0.9171	188.70	185.40
						I <sub>R</sub> (μA)	0.2164	0.0880	0.5600	0.1800
					FINAL	V <sub>F</sub> (V)	0.76909	0.8112	0.7700	0.7670
						V <sub>B</sub> (V)	187.55	0.9303	188.80	184.90
						I <sub>R</sub> (μA)	0.2827	0.2160	1.1400	0.1900
5	TEMPERATURE CYCLING	AIR TO AIR 100 °C / 30MIN -10 °C / 30MIN	8 CYCLES	0 / 22	INITIAL	V <sub>F</sub> (V)	0.77059	1.1406	0.7720	0.7690
						V <sub>B</sub> (V)	188.49	0.8442	189.60	186.30
						I <sub>R</sub> (μA)	0.1882	0.0405	0.3600	0.1600
					FINAL	V <sub>F</sub> (V)	0.77032	1.1291	0.7730	0.7690
						V <sub>B</sub> (V)	188.40	1.6158	189.90	182.10
						I <sub>R</sub> (μA)	0.2182	0.0711	0.5300	0.1800

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 302, Block A, Nanfangguoji  
Plaza, Yitian Rd. 3013, Futian  
district, Shenzhen, China  
e-mail: [candy@sirectifier.com.tw](mailto:candy@sirectifier.com.tw)

**Taiwan -**

19F-3, NO. 75, Sec. 1, Xintai  
5<sup>th</sup> Rd., Xixhi City, 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)