ORNL TEST RESULTS FOR 1200V, 30A JBS Diode

Ratings

Collector-Emitter Voltage	1200	V
Continuous Drain Current	30	A
Operating Temperature	225	°C

Electrical Characteristics

Parameters	Symbol	Conditions	Value			Unit
			Min	Typ	Max	

On characteristics

Forward Voltage	V_F	T_j=25°C	-	0.75	-	V
		T_j=225°C	-	0.55	-	V

Off characteristics

Collector-Emitter Blocking Voltage	BV_{AK}	I_F= 0 mA	1200	-	-	V
Total Collector Leakage Current	I_R	V_{AK}=600V, I_B= 0mA ,T_j=25°C	-	0.5	-	µA
		V_{AK}=600V,I_B=0mA ,T_j=200°C	-	3.8	-	µA

Switching characteristics

Turn-off Energy	E_{off}	V_{AK}=600V, I_F=25 A, Inductive load	-	110	-	µJ
Turn-off Energy	E_{off}	V_{Ak}=400V, I_F=25 A, Inductive load	-	60	-	µJ
Turn-off Energy	Eoff	V_{Ak}=200V, I_F=25 A, Inductive load	-	20	-	µJ

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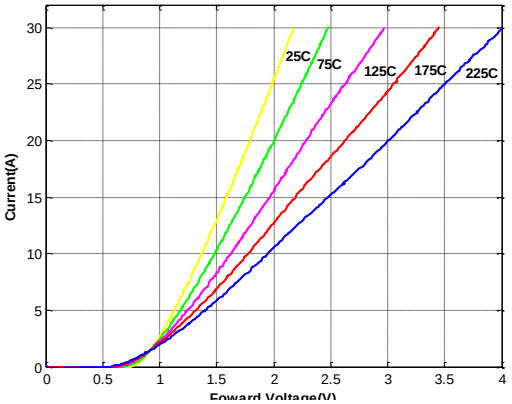

Fig.1: i-v curves

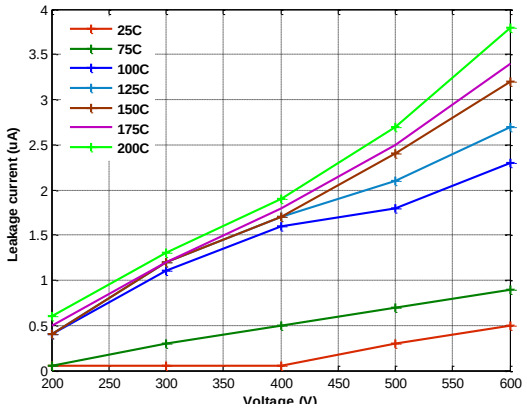

Fig.2: Leakage Current

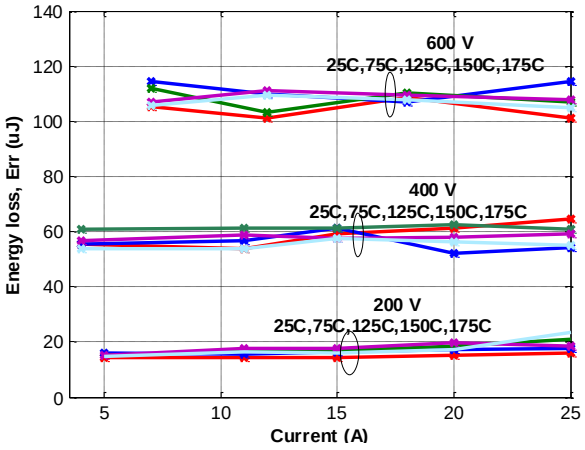

Fig.3: Switching Energy Losses