

LOW LOSS SUPER HIGH SPEED RECTIFIER

REV:1.01

Features	◆ Ultrafast 35 Nanosecond Recovery Time ◆ 175° C Operating Junction Temperature ◆ Popular T0-247 Package ◆ Low VF ◆ High Temperature Glass Passivated Junction ◆ Low Forward Voltage ◆ Low Leakage Current ◆ Reverse Voltage to 200 Volts ◆ Pb-Free Packages are Available	Typical Reference Data VRRM= 200V IF(AV)= 20A
APPLICATIONS	● High speed power switching ● Plating Power Supply ● Converter & Chopper ● Inversion Welder ● PFC ● Ultrasonic Cleaner and Welder	

MAXIMUM RATINGS

Rating	Symbol	D92-02	Unit
Peak Repetitive Reverse Voltage	VRRM	200	V
Working Peak Reverse Voltage	VRWM		
DC Blocking Voltage	VR		
Average Rectified Forward Current	IF (AV)	10	A
Total Device, (Rated VR), TC = 110°C		20	
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave , single phase, 50 Hz)	IFSM	100	A
Operating Junction Temperature and Storage Temperature	TJ, Tstg	- 40 to +150	°C

THERMAL CHARACTERISTICS (Per Diode Leg)

Maximum Thermal Resistance, Junction to Case	R θ JC	1.5	°C/W
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ELECTRICAL CHARACTERISTICS (Per Diode Leg)

Maximum Instantaneous Forward Voltage (1) (IF = 10 Amps, TC = 25° C)	VF	0.94			V
Maximum Instantaneous Reverse Current (1) (Rated dc Voltage, TJ = 150° C)	IR	800	800	800	μ A
(Rated dc Voltage, TJ = 25° C)		10	10	10	
Maximum Reverse Recovery Time (IF = 0.5 A, IR = 1.0 A, IREC = 0.25 A)	Trr	35			ns

(1) Pulse Test: Pulse Width = 300 μ s, Duty Cycle $\leq$ 2.0%.

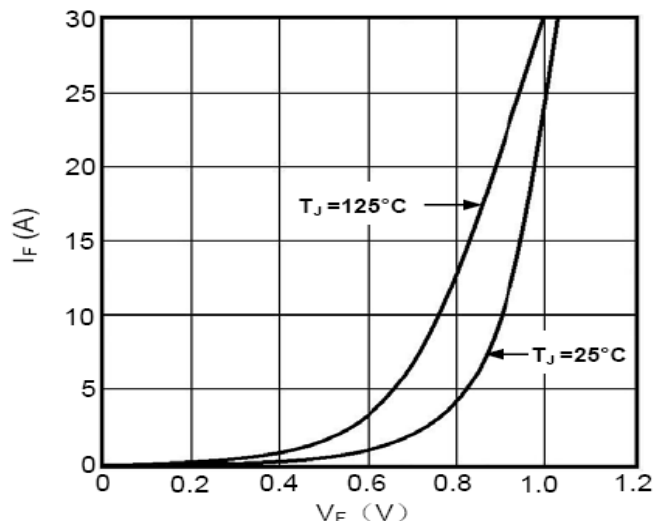


Fig1. Forward Voltage Drop vs Forward Current

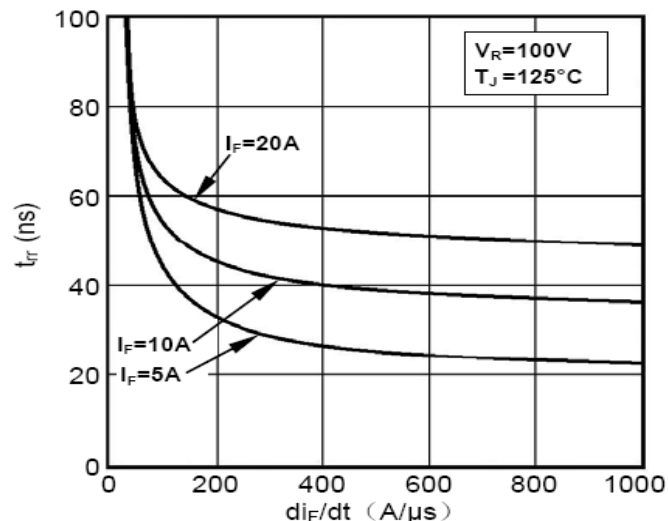


Fig2. Reverse Recovery Time vs di_F/dt

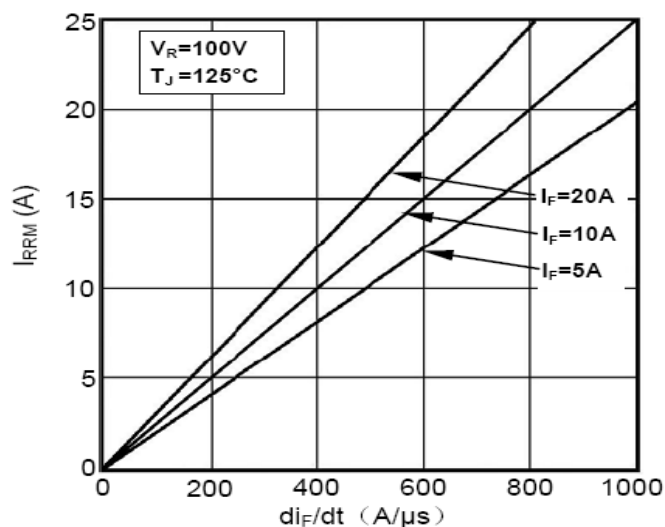


Fig3. Reverse Recovery Current vs di_F/dt

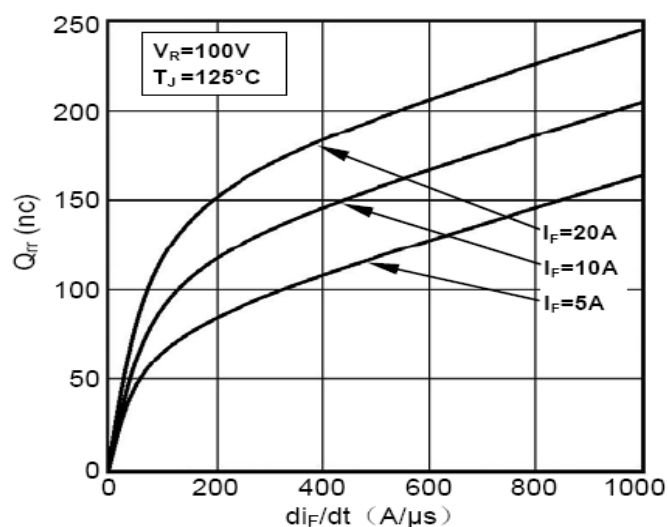


Fig4. Reverse Recovery Charge vs di_F/dt

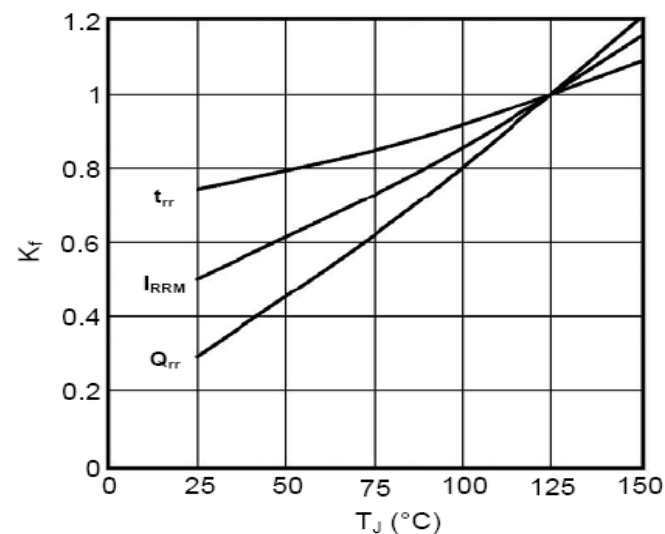


Fig5. Dynamic Parameters vs Junction Temperature

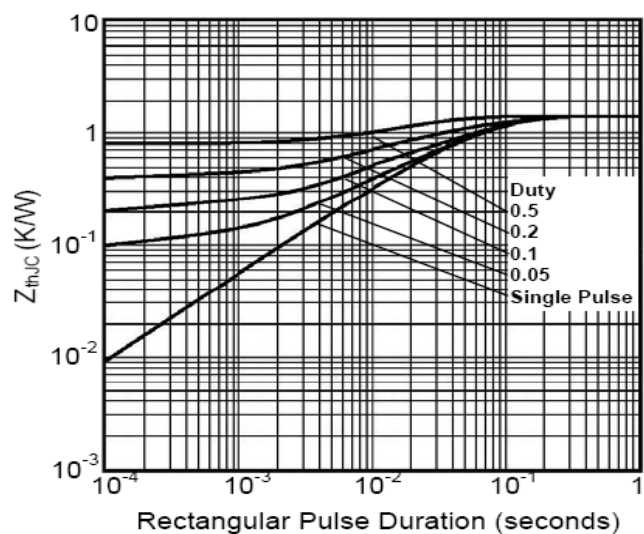


Fig6. Transient Thermal Impedance

修订内容