

SUPER-FAST RECOVERY RECTIFIERS

REV:1.01

Features	◆ Ultrafast 35 Nanosecond Recovery Time ◆ 150° C Operating Junction Temperature ◆ Popular T0-247 Package ◆ Epoxy Meets UL94 ,V0 @ 1/8" ◆ High Temperature Glass Passivated Junction ◆ Low Forward Voltage ◆ Low Leakage Current ◆ Reverse Voltage to 600 Volts ◆ Pb-Free Packages are Available	Typical Reference Data VRRM= 200V IF(AV)= 30A VRRM= 400V IF(AV)= 30A VRRM= 600V IF(AV)= 30A
Mechanical Characteristics	● Case: Epoxy, Molded ● Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable ● Lead Temperature for Soldering Purposes: 260° C Max. for 10 Seconds ● Shipped 50 units per plastic tube	

MAXIMUM RATINGS

Rating	Symbol	SFP3002	SFP3004	SFP3006	Unit
Peak Repetitive Reverse Voltage	VRRM	200	400	600	V
Working Peak Reverse Voltage	VRWM				
DC Blocking Voltage	VR				
Average Rectified Forward Current	IF (AV)	15			A
Total Device, (Rated VR), TC = 150°C		30			
Peak Repetitive Forward Current (Rated VR, Square Wave, 20 kHz), TC = 150°C	IFM	21			A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave , single phase, 60 Hz)	IFSM	150			A
Operating Junction Temperature and Storage Temperature	TJ, Tstg	- 40 to +150			°C

THERMAL CHARACTERISTICS (Per Diode Leg)

Maximum Thermal Resistance, Junction to Case	Rθ JC	1.1	°C/W
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ELECTRICAL CHARACTERISTICS (Per Diode Leg)

Maximum Instantaneous Forward Voltage (1) (IF = 15.0 Amps, TC = 25° C)	VF	1.1	1.4	1.7	V
Maximum Instantaneous Reverse Current (1) (Rated dc Voltage, TJ = 150° C)	IR	500	500	500	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 = 300μ s, Duty Cycle≤2.0%.

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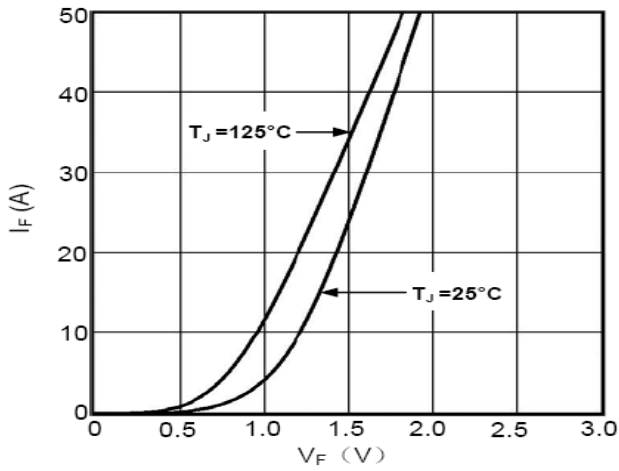


Fig1. Forward Voltage Drop vs Forward Current

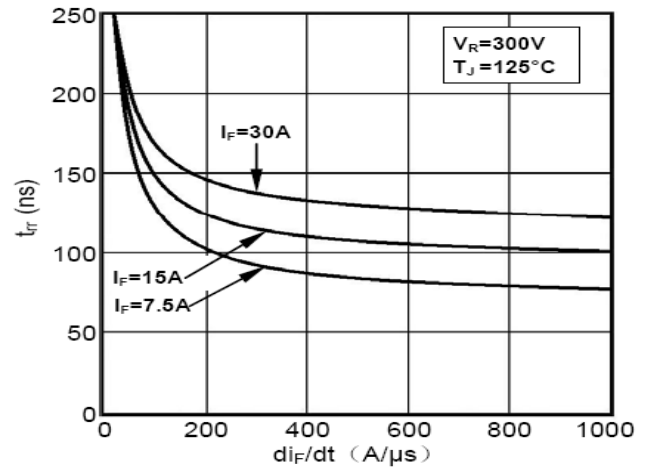


Fig2. Reverse Recovery Time vs di_F/dt

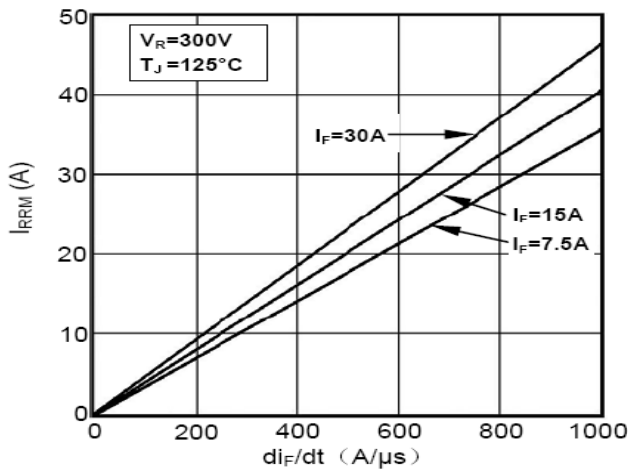


Fig3. Reverse Recovery Current vs di_F/dt

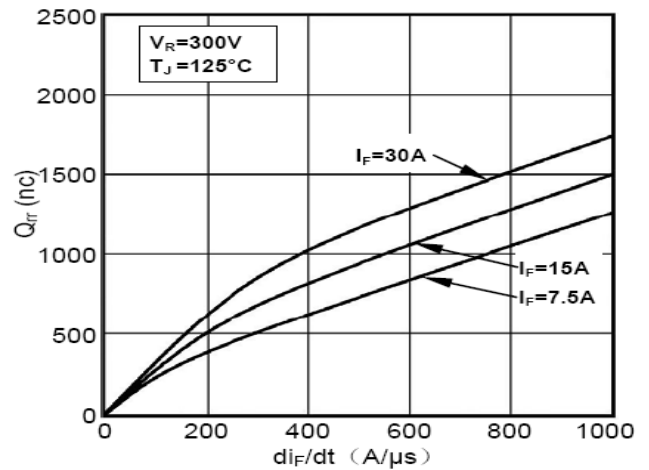


Fig4. Reverse Recovery Charge vs di_F/dt

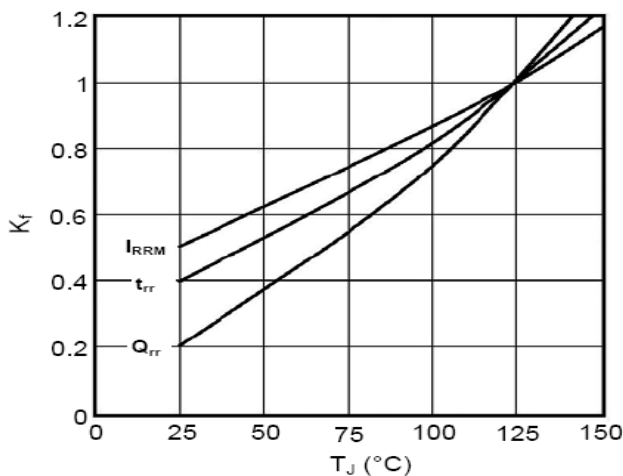


Fig5. Dynamic Parameters vs Junction Temperature

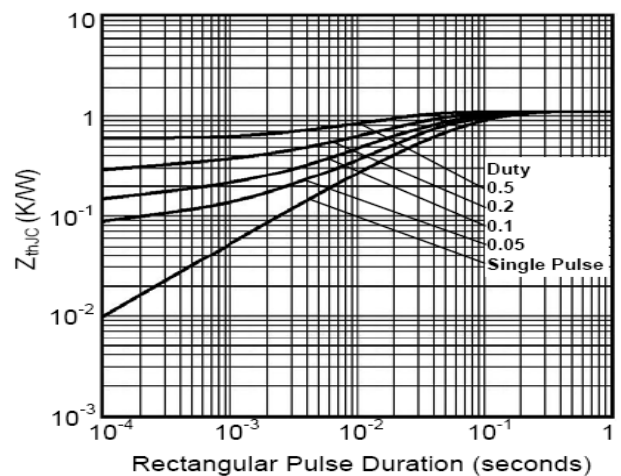
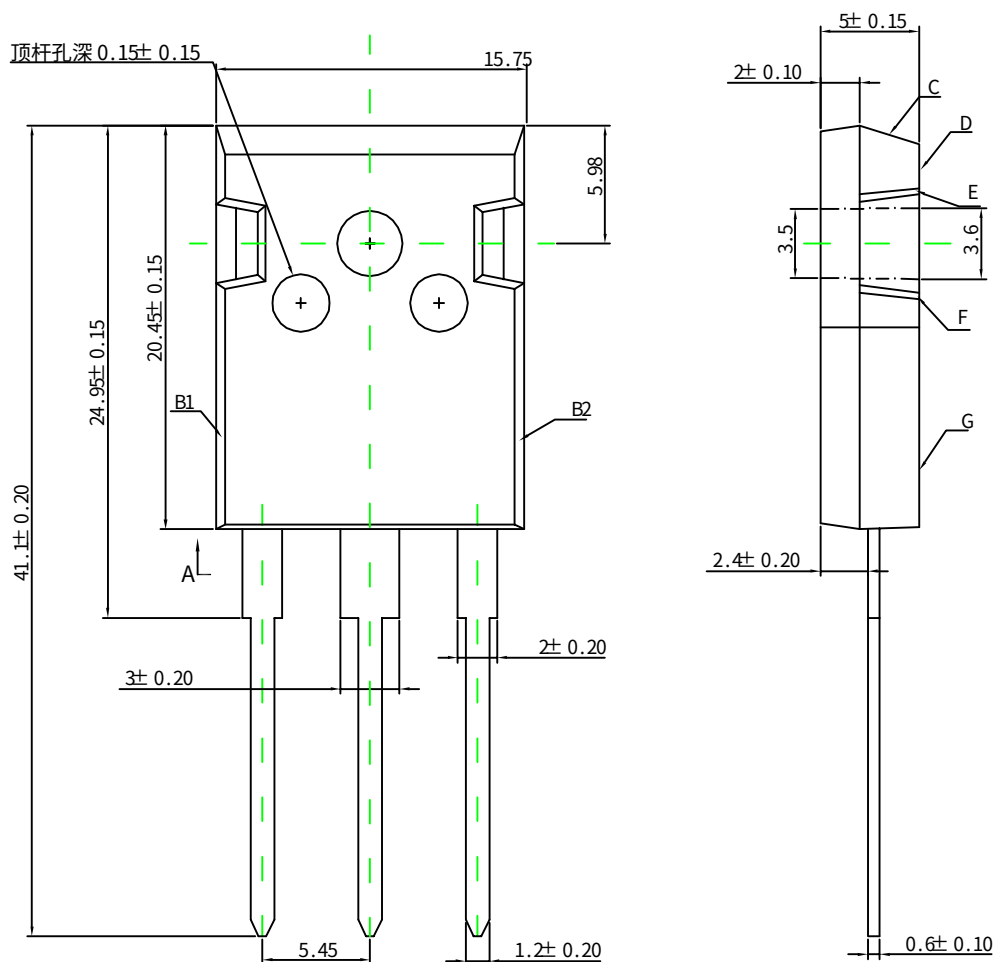


Fig6. Transient Thermal Impedance

T0-247/3PAB



注意事项:

- XXXX代表日期码，第一码表示公元年的最后一码，第二码表示生产时当月码 (A, B, C... 为一月，二月，三月...), 第三，四码表示大量生产时批次码。
例如:2009年第一月生产的，D/C为9AXX。
- 包装及出货:ROHS, 30PCS/管, 0.6K/BOX, 1.8K(1.8K BOXEX)/CARTON, BOXEX及 CARTON。



SFP3006



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修订内容