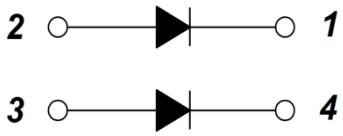
PRODUCT FEATURES

- Ultrafast Reverse Recovery Time
- Soft Reverse Recovery Characteristics
- Low Reverse Recovery Loss
- High System Power Density
- Popular SOT-227 Package

APPLICATIONS

- Inversion Welder
- Uninterruptible Power Supply
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- PFC



ABSOLUTE MAXIMUM RATINGS

T_C=25°C unless otherwise specified

Symbol	Parameter/Test Conditions		Values	Unit
V_R	Maximum D.C. Reverse Voltage		700	V
V_{RRM}	Maximum Repetitive Reverse Voltage			
$I_{F(AV)}$	Average Forward Current	T_C=80℃, Per Diode	100	A
		T_C=80℃, Per Moudle	200	
$I_{F(RMS)}$	RMS Forward Current	T_C=80℃, Per Diode	150	
I_{FSM}	Non Repetitive Surge Forward Current	T_J=45℃,t=10ms,Sine,peak value	1200	
		T_J=45℃,t=8.3ms,Sine,peak value	1350	
I^2t	For Fusing	T_J=45℃,t=10ms,Sine,peak value	7200	A^2S
		T_J=45℃,t=8.3ms,Sine,peak value	7500	
P_D	Power Dissipation		275	W
T_J	Junction Temperature		-40 to +150	℃
T_{STG}	Storage Temperature Range		-40 to +125	℃
Torque	Module to Sink	Recommended（M4）	0.7～1.1	Nm
Torque	Module Electrodes	Recommended（M4）	0.7～1.1	Nm
R_{thJC}	Junction to Case Thermal Resistance(Per Diode)		0.45	℃ /W
Weight			26.5	g

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ELECTRICAL CHARACTERISTICS

T_C =25°C unless otherwise specified

Symbol	Parameter/Test Conditions		Min.	Typ.	Max.	Unit
I_{RM}	Maximum Reverse Leakage Current	V_R = 700V			0.5	mA
		V_R = 700V, T_J = 125℃			1	
V_F	Forward Voltage	I_F=100A		1.30	1.5	V
		I_F=100A,T_J=125℃		1.15		
trr	Reverse Recovery Time (I_F = 1A, dI_F/dt = -200A/μs, V_R = 30V)			45		ns
trr	Reverse Recovery Time	I_F=100A,V_R =350V,		110		ns
I_{RRM}	Maximum Reverse Recovery Current	dI_F/dt = -200A/μs		12		A
trr	Reverse Recovery Time	I_F= 100A,V_R = 350V,		275		ns
I_{RRM}	Maximum Reverse Recovery Current	dI_F/dt = -200A/μs ,T_J=125℃		23		A

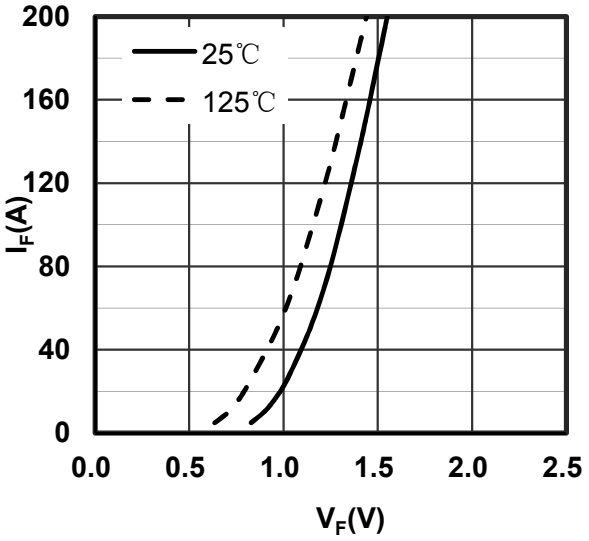


Figure 1. Forward Voltage Drop vs Forward Current

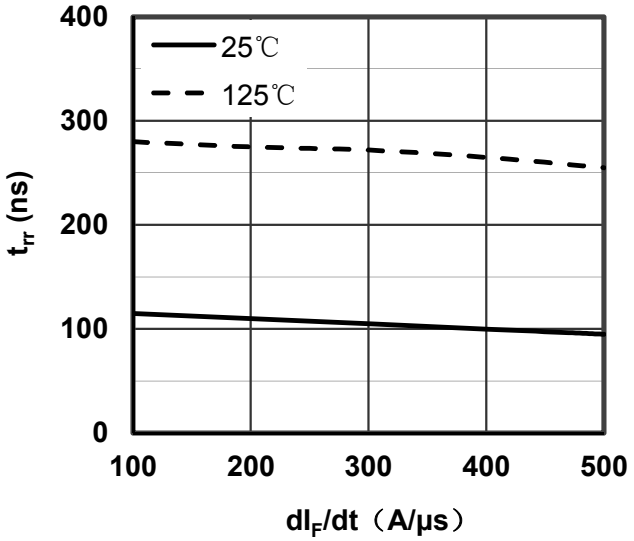


Figure 2. Reverse Recovery Time vs dI_F/dt

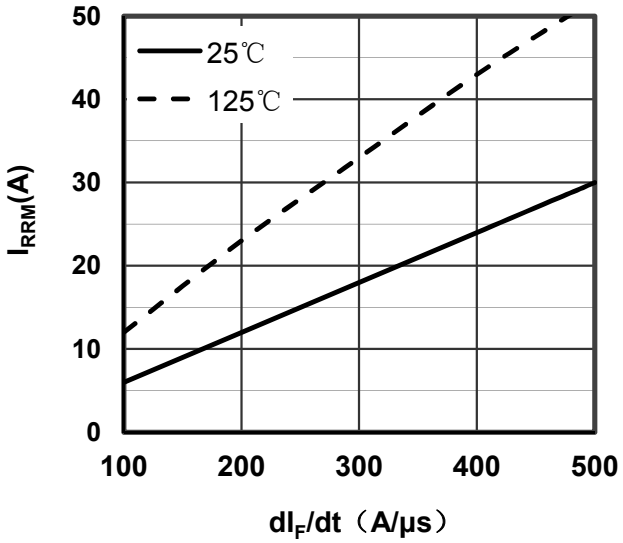


Figure 3. Reverse Recovery Current vs dI_F/dt

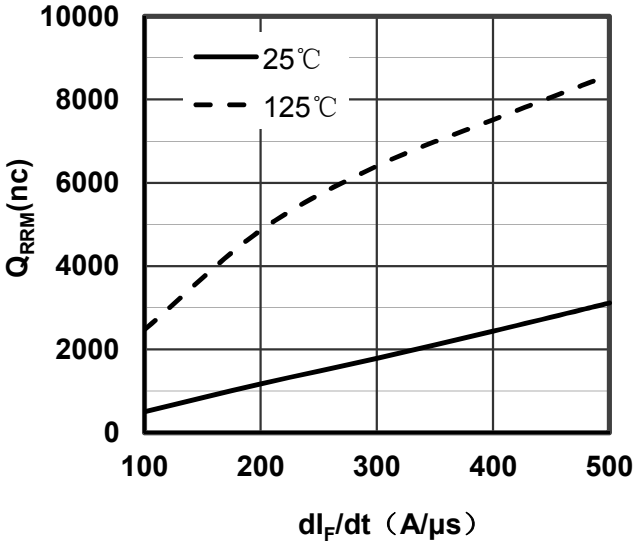


Figure 4. Reverse Recovery Charge vs dI_F/dt

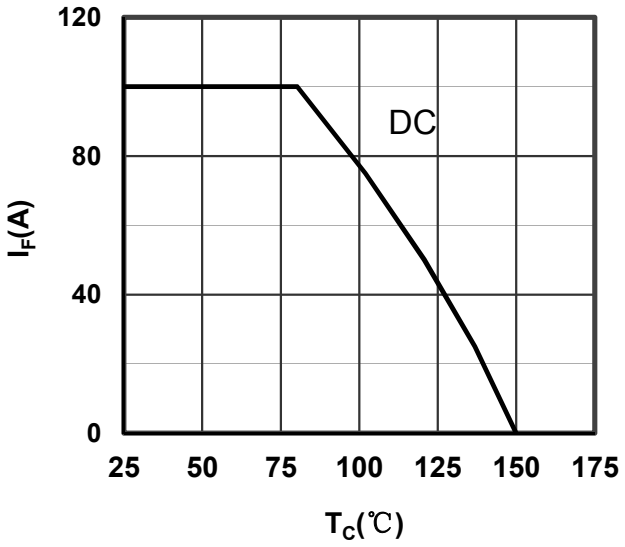


Figure 5.Forward current vs Case temperature

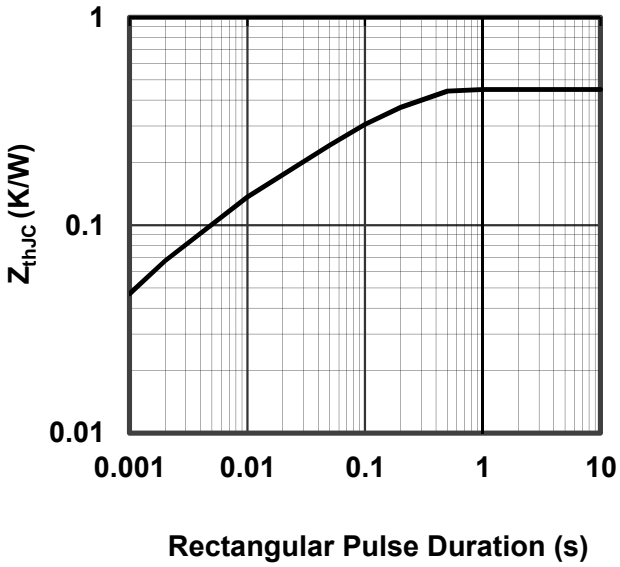
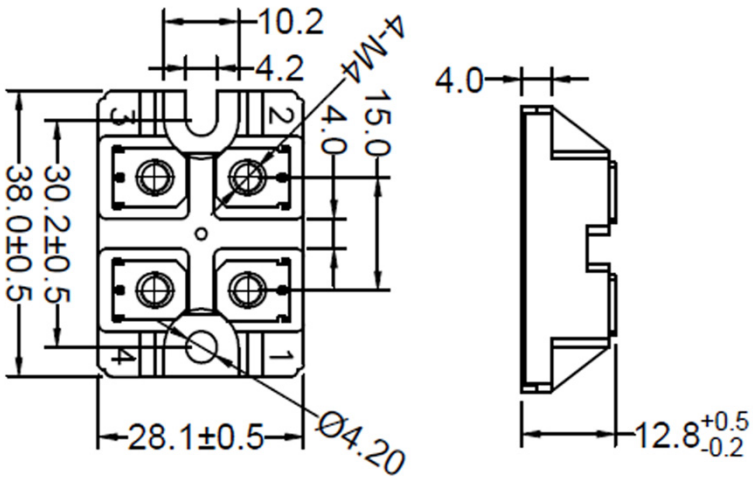


Figure 6. Transient Thermal Impedance



Dimensions in (mm)

Figure 7. Package Outline