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

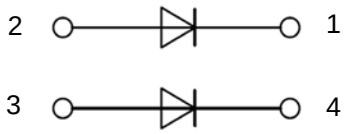
☐ Uninterruptible Power Supply

☐ 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		400	V
V_{RRM}	Maximum Repetitive Reverse Voltage			
$I_{F(AV)}$	Average Forward Current	T_C=90℃, Per Diode	100	A
		T_C=90℃, Per Moudle	200	
$I_{F(RMS)}$	RMS Forward Current	T_C=90°C, Per Diode	150	
I_{FSM}	Non Repetitive Surge Forward Current	T_J=45℃,t=10ms,Sine,peak value	1100	
		T_J=45℃,t=8.3ms,Sine,peak value	1210	
I^2t	For Fusing	T_J=45℃,t=10ms,Sine,peak value	6050	A^2S
		T_J=45℃,t=8.3ms,Sine,peak value	6070	
P_D	Power Dissipation		360	W
T_J	Junction Temperature		-40 to +150	℃
T_{STG}	Storage Temperature Range		-40 to +125	℃
V_{isol}	Isolation Breakdown Voltage	AC, 50Hz(R.M.S), t=1minute	3000	V
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)		0.34	℃ /W
Weight			26.5	g

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 = 400V			0.5	mA
		V_R = 400V, T_J = 125℃			10	
V_F	Forward Voltage	I_F=100A		1.2	1.7	V
		I_F=100A,T_J=125℃		1.0		
trr	Reverse Recovery Time (I_F = 1A, dI_F/dt = -200A/μs, V_R = 30V)			40		ns
trr	Reverse Recovery Time	I_F=100A,V_R =200V,		62		ns
I_{RRM}	Maximum Reverse Recovery Current	dI_F/dt =-200A/μs		6.7		A
trr	Reverse Recovery Time	I_F=100A,V_R =200V,		118		ns
I_{RRM}	Maximum Reverse Recovery Current	dI_F/dt =-200A/μs ,T_J=125℃		14.2		A

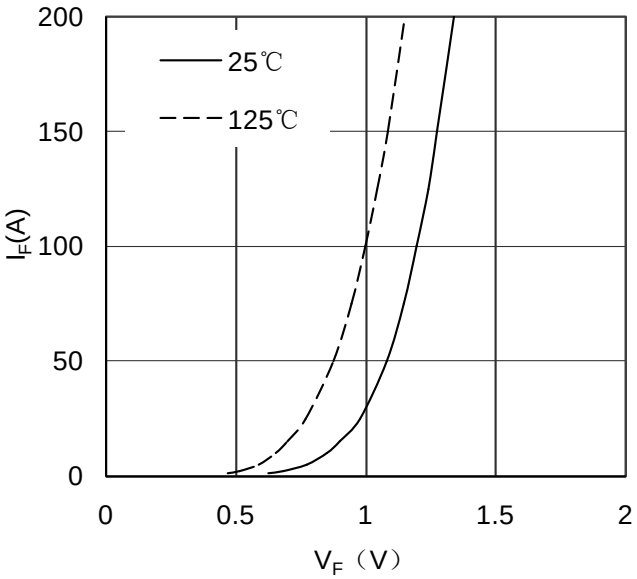


Figure 1. Forward Voltage Drop vs Forward Current

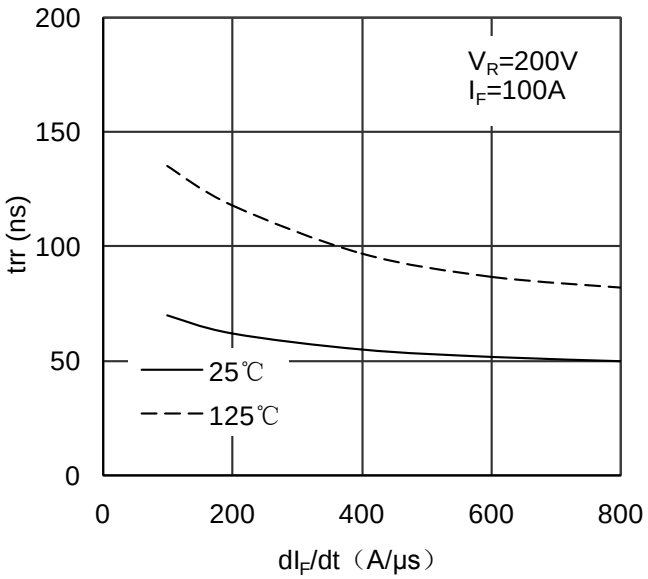


Figure 2. Reverse Recovery Time vs dI_F/dt

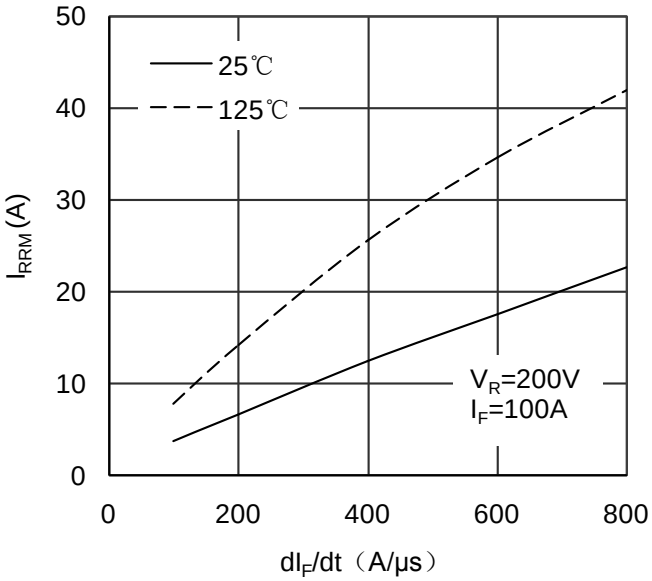


Figure 3. Reverse Recovery Current vs dI_F/dt

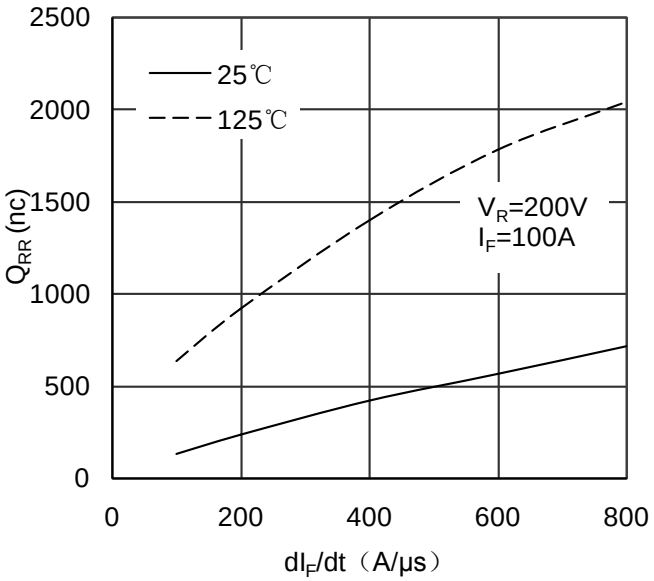


Figure 4. Reverse Recovery Charge vs dI_F/dt

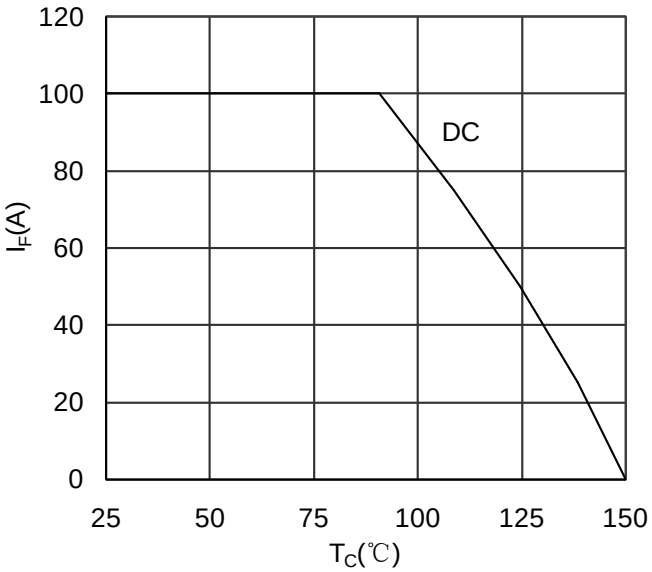


Figure 5. Forward current vs Case temperature

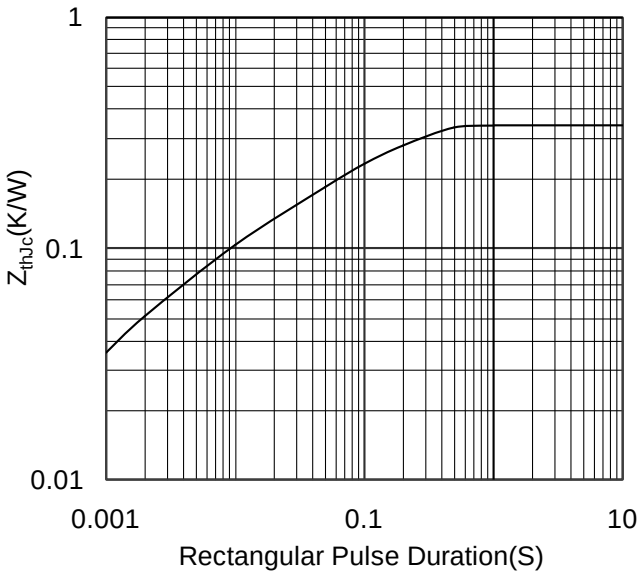
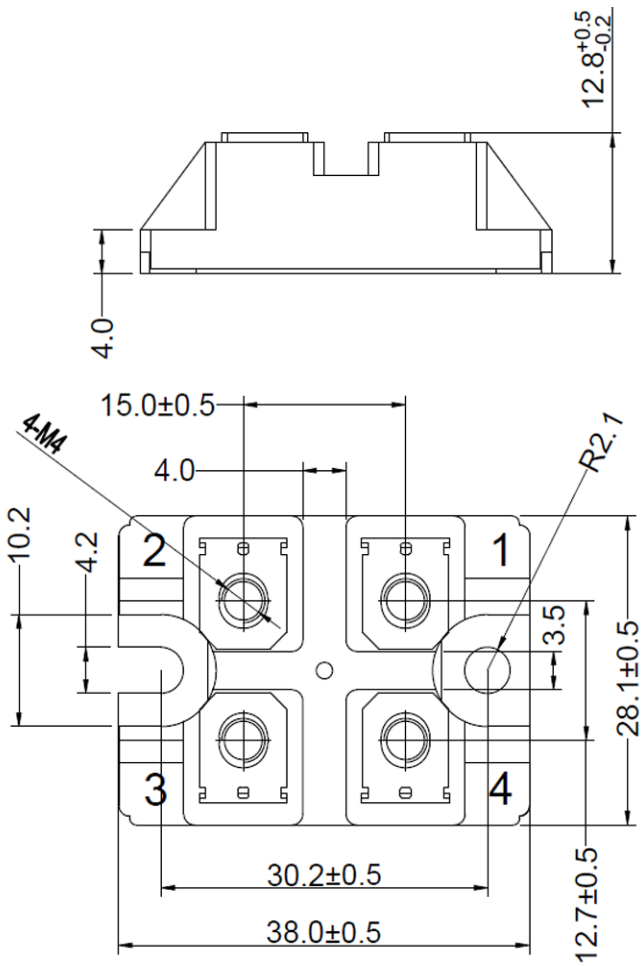


Figure 6. Transient Thermal Impedance



Dimensions in (mm)

Figure 7. Package Outline