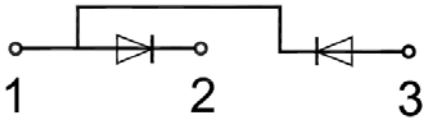
DD200HF120T1WH

Diode Module

Preliminary Data

Features：

- Low V_F
- Low I_{RR}
- Soft Reverse Recovery



Applications：

- Switch Mode Power Supplies
- Hard Switched PFC Boost Diode
- UPS Free Wheeling Diode
- Motor Drive FW
- SMPS FW

Absolute Maximum Ratings (T_C = 25℃ unless otherwise specified)

Symbol	Description	Test Conditions	Min.	Typ.	Max.	Units
V_{RRM}	Repetitive Peak Reverse Voltage	T_J =25℃	1200			V
I_F	DC Forward Current				200	A
I_{FRM}	Repetitive Peak Forward Current				400	A
Viso	Isolation Voltage(All Terminals Shorted)	AC 50Hz;r.m.s.;1min	3000			V
T_{JOP}	Maximum Operating Temperature		-40		+150	℃
T_{stg}	Storage Temperature		-40		+125	℃
T	Power Terminals Screw:M6		4.0		6.0	N·m
	Mounting Screw:M6		4.0		6.0	N·m
Weight	Weight Of Module			150		g

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Electrical Characteristics of Diode（T_J = 25℃ unless otherwise specified）

Symbol	Description	Test conditions		Min.	Typ.	Max.	Units
V_R	Cathode to Anode Breakdown Voltage	I_R = 100μA	T_J= 25℃	1200			V
V_{FM}	Forward Voltage	I_F＝200A	T_J= 25℃		1.80	2.10	V
			T_J=150℃		1.95		V
I_{RM}	Maximum Reverse Leakage Current	V_R=1200V	T_J= 25℃			1	mA
			T_J=150℃			5	mA
t_{rr}	Reverse Recovery Time	V_R=600V I_F＝200A -diF/dt =1900A/μs,	T_J= 25℃		338		ns
			T_J=125℃		525		
			T_J=150℃		563		
I_{rr}	Peak Reverse Recovery Current		T_J= 25℃		120		A
			T_J=125℃		142		
			T_J=150℃		150		
Q_{rr}	Reverse Recovery Charge		T_J= 25℃		20.4		μC
			T_J=125℃		36.0		
			T_J=150℃		40.0		
E_{rec}	Reverse Recovery Energy		T_J= 25℃		8.19		mJ
			T_J=125℃		15.68		
			T_J=150℃		17.39		

Thermal Impedance Characteristics

Symbol	Description	Min.	Typ.	Max.	Units
$R_{\theta JC}$	Junction-To-Case (Diode)		0.20		k/W
$R_{\theta CS}$	Case-To-Sink Thermally (Conductive Grease Applied)		0.05		k/W

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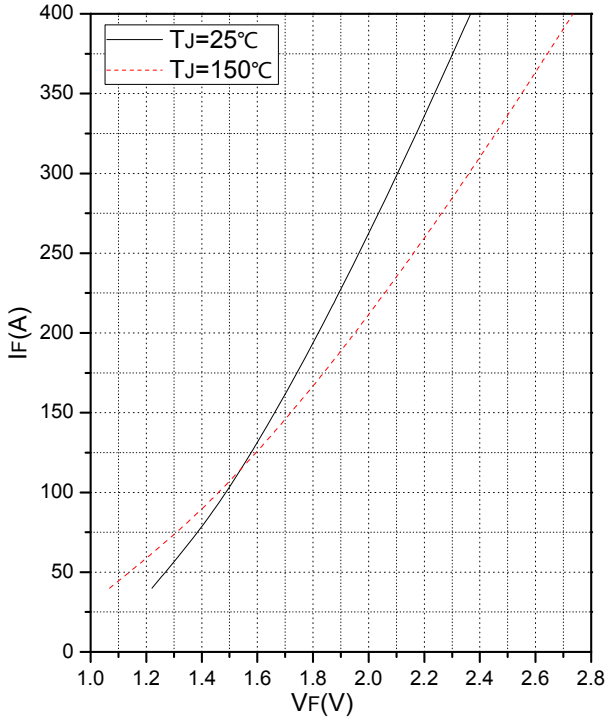

Fig.1 Forward Characteristics of Diode

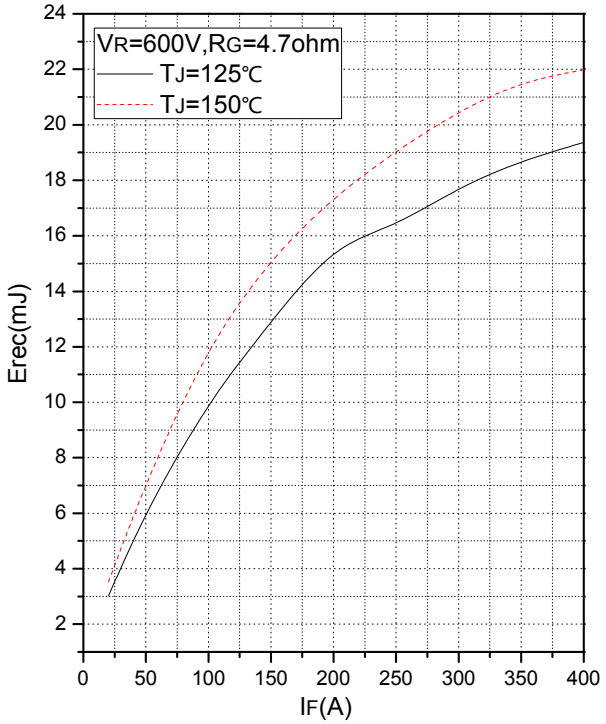

Fig.2 Typical Switching Loss vs. Forward Current

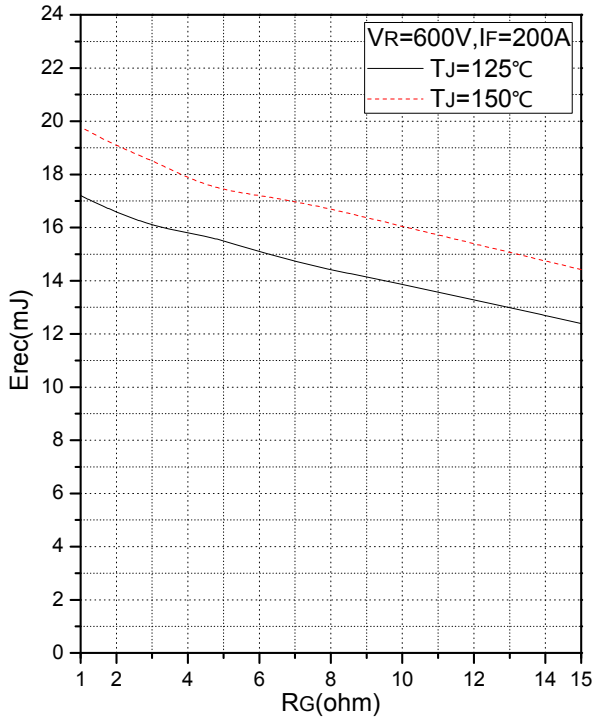

Fig.3 Typical Switching Loss vs. Gate Resistance

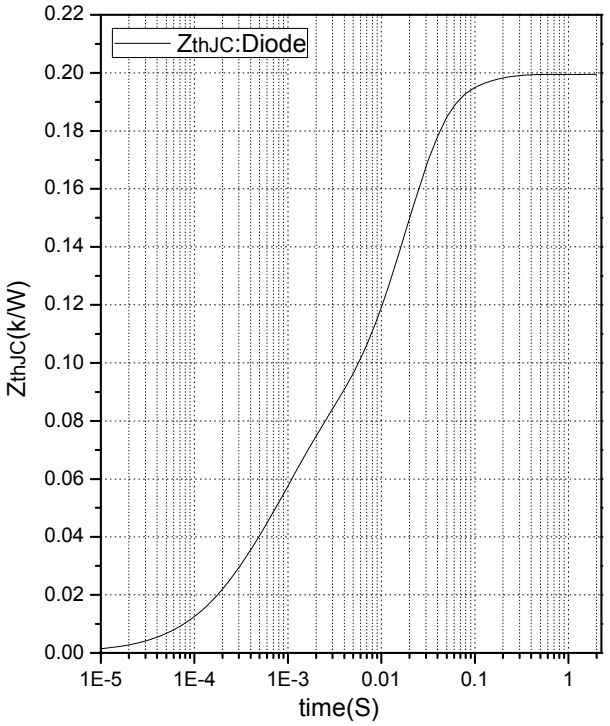

Fig.4 Transient Thermal Impedance

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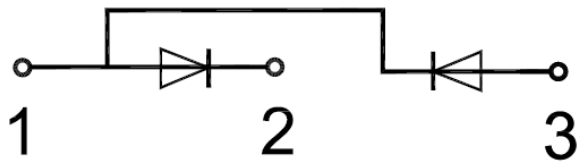
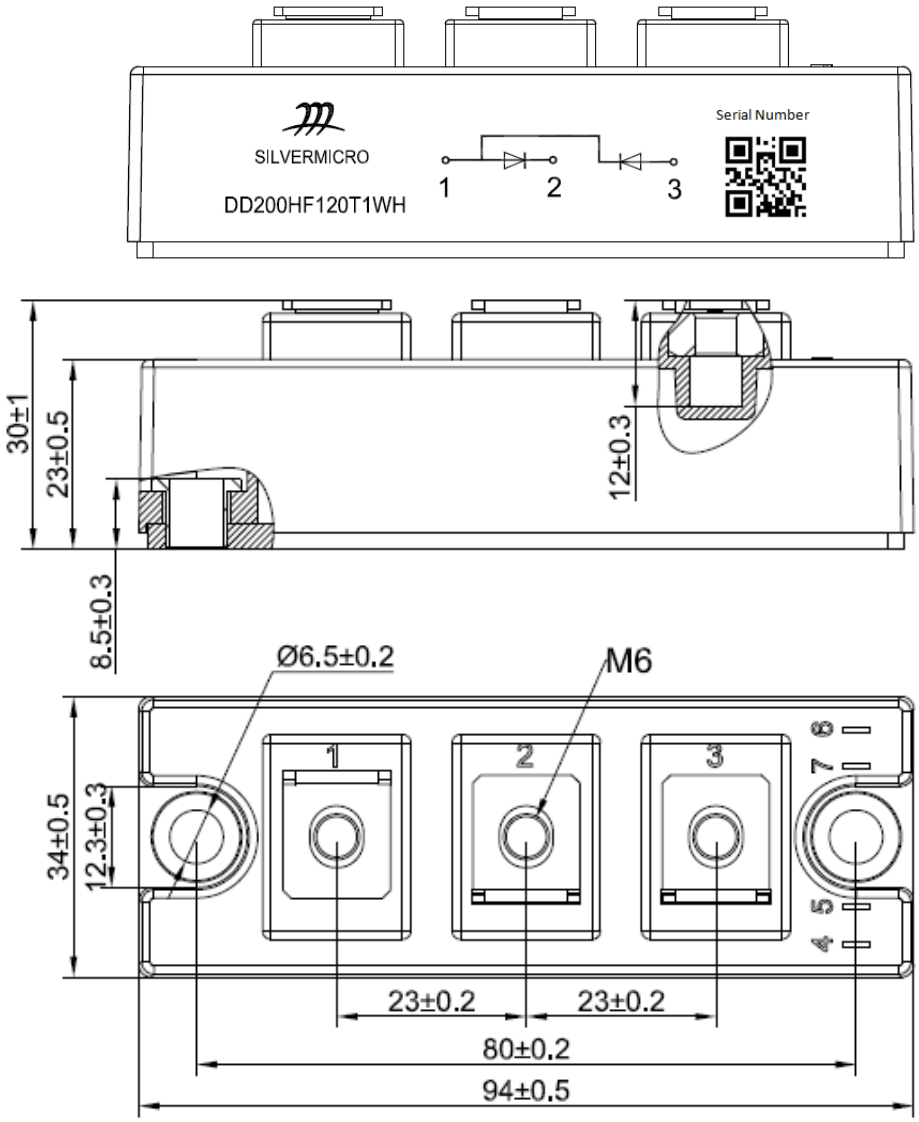
Internal Circuit Diagram:



Package Outline (Unit: mm):



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Date	Revision	Notes
06/12/2018	01	Initial release

Announcement

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