



DD100DSD60B5H

Diode Module

Preliminary Data

Features:

- Fast and Soft Recovery
- Low I_{rr} and Q_{rr}



Applications:

- Switch Mode Power Supplies
- Free Wheeling Diode
- UPS

Absolute Maximum Ratings ($T_C=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Description		Value	Units
V_{RRM}	Repetitive Peak Reverse Voltage		600	V
I_F	DC Forward Current	$T_C=25^{\circ}\text{C}$	200	A
		$T_C=80^{\circ}\text{C}$	100	A
I_{FRM}	Repetitive Peak Forward Current	$t_p=1\text{ms}$	200	A
P_{tot}	Total Power Dissipation	$T_{Jmax}=150^{\circ}\text{C}$	245	W



Electrical Characteristics (T_J = 25°C unless otherwise specified)

Symbol	Description	Test conditions		Min.	Typ.	Max.	Units	
V _R	Cathode to Anode Breakdown Voltage	I _R =100μA		600			V	
V _{FM}	Forward Voltage	I _F =100A	T _J =25°C		1.6	1.9	V	
			T _J =125°C		1.4			
I _R	Reverse leakage current	V _R =600V	T _J =25°C			2	mA	
			T _J =125°C			5		
t _{rr}	Reverse Recovery Time	V _R =400V, I _F =100A, di/dt=1900A/μs	T _J =25°C		67		ns	
			T _J =125°C		69			
I _{rr}	Peak Reverse Recovery Current		T _J =25°C		40		A	
			T _J =125°C		45			
Q _{rr}	Reverse Recovery Charge		T _J =25°C		1.2		μC	
			T _J =125°C		2.4			
E _{rec}	Recovery Energy		T _J =25°C		0.2		mJ	
			T _J =125°C		0.6			
R _{θJC}	Diode Thermal Resistance: Junction-to-Case					0.51	°C/W	

Module

Symbol	Description		Min.	Typ.	Max.	Units
V _{iso}	Isolation Voltage (All Terminals Shorted)	f=50Hz, 30s	4500			V
T _J	Maximum Junction Temperature				150	°C
T _{JOP}	Maximum Operating Junction Temperature Range		-40		+150	°C
T _{stg}	Storage Temperature		-40		+150	°C
CTI	Comparative Tracking Index		200			
R _{θCS}	Case-to-Sink Thermally (Conductive Grease Applied)				0.06	°C/W
T	Power Terminals Screw(M4)		1.1		1.5	N·m
T	Mounting Screw(M4)		1.1		1.5	N·m
G	Weight			30		g

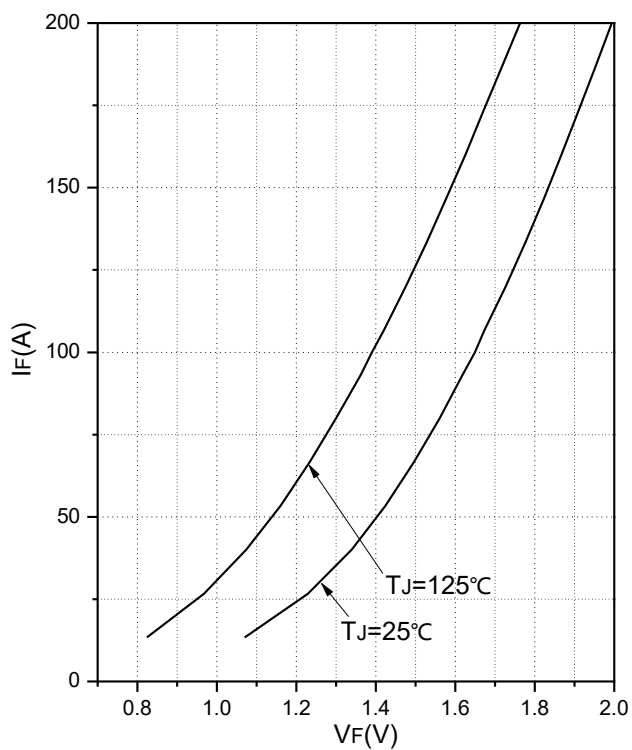


Fig.1 Forward Characteristics of Diode

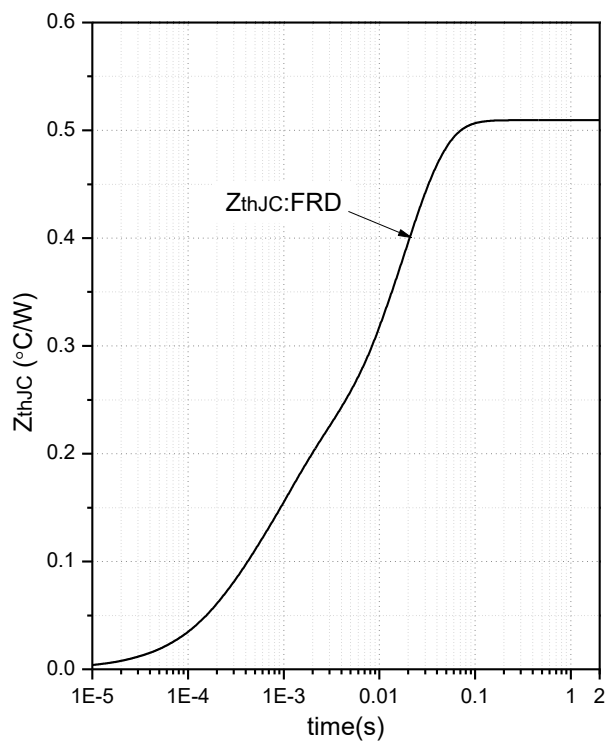
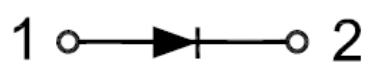


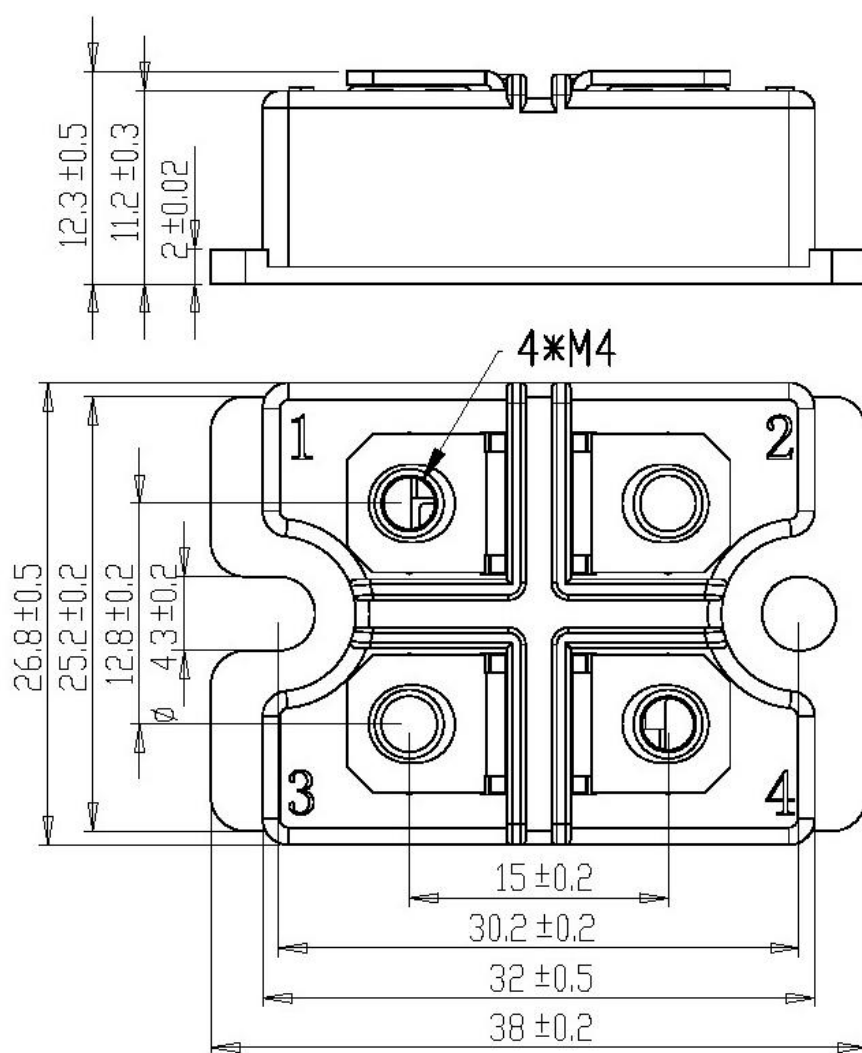
Fig.2 Transient Thermal Impedance



Internal Circuit Diagram:



Package Outline (Unit: mm):





Date	Revision	Notes
02/24/2016	01	Initial Release

Announcement

Information in this document is believed to be accurate and reliable. However, NJSME does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information.

Right to Make Changes

NJSME reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

The datasheet with “REV.” + “Arabic numerals” is based on engineering data for initial reference purpose only.

The released datasheet would be issued with “REV.” + “alphabet characters”.