

JSD200

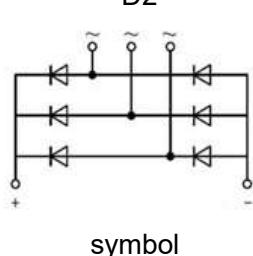
Description

- 1) Low forward voltage and leakage current
- 2) Low inductance package
- 3) High surge current capability



Typical Application

- 1) Field supply for DC motors
- 2) Line rectifiers for transistorized AC motor controllers
- 3) Non-controllable rectifiers for AC/DC converter



Absolute Maximum Ratings (Packaged into D2, unless otherwise specified, $T_{CASE}=25^{\circ}\text{C}$)

Parameter	Test Conditions	Symbol	Values				Unit
			12	16	18	20	
Junction temperature range		T_J	-40~+150				°C
Storage temperature range		T_{STG}	-40~+125				°C
Repetitive peak reverse voltage		V_{RRM}	1200	1600	1800	2000	V
Non-repetitive peak reverse voltage		V_{RSM}	1300	1700	1900	2100	V
Output current	$T_c=95^{\circ}\text{C}$	I_D	200				A
Forward surge current	1/2 cycle, Sine wave 50Hz, $T_J=25^{\circ}\text{C}$	I_{FSM}	2000				A
Value for fusing	50Hz, $T_J=25^{\circ}\text{C}$	I^2t	20000				A^2s
RMS isolation voltage		V_{isol}	3600/3000				V



Three Phase Rectifier Bridge Module

Electrical Characteristics (Packaged into D2, unless otherwise specified, $T_{CASE}=25^{\circ}\text{C}$)

Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$I_F=200\text{A}, T_J=25^{\circ}\text{C}$	V_{FM}	-	-	1.35	V
Reverse leakage current	$V_R=V_{RRM}, T_J=25^{\circ}\text{C}$	I_{RRM}	-	-	0.5	mA
	$V_R=V_{RRM}, T_J=150^{\circ}\text{C}$		-	-	10	mA
Threshold voltage	$T_J=150^{\circ}\text{C}$, for power loss calculation only	V_{TO}	-	-	0.85	V
Slope resistance		r_T	-	-	3	mΩ

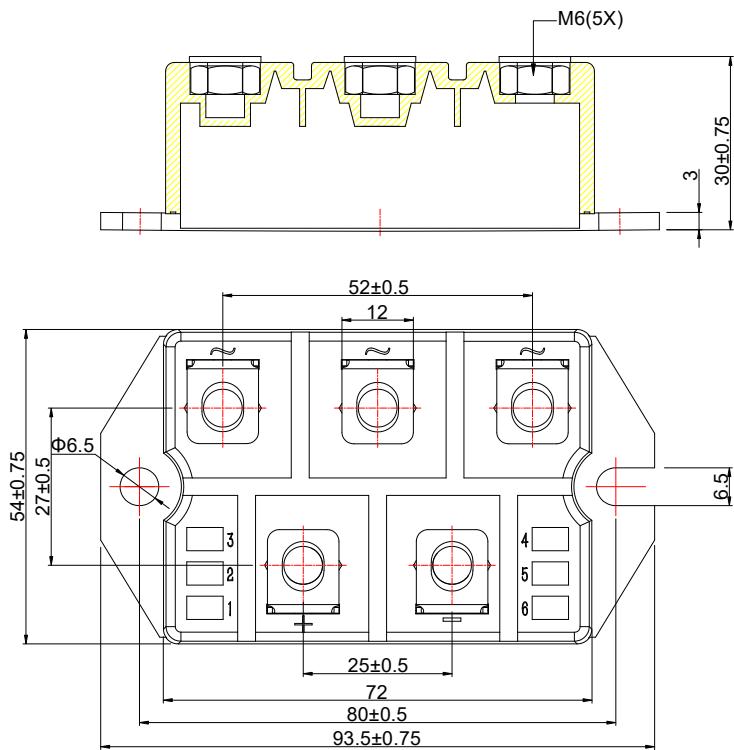
Thermal Characteristics (Packaged into D2, unless otherwise specified, $T_{CASE}=25^{\circ}\text{C}$)

Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Thermal impedance (junction to case)	Per diode	$R_{th(j-c)}$	-	-	0.6	°C/W
Mounting torque	Module and heatsink fixed torque, screw M6	M	4.25	-	5.75	Nm
	Electrode connection torque, screw M6		4.25	-	5.75	Nm
Weight			270			g
Case style			D2			

Ordering Information

<u>JS</u>	<u>D</u>	<u>200</u>	<u>/18</u>	12: $V_{RSM} \geq 1300\text{V}$ 16: $V_{RSM} \geq 1700\text{V}$ 18: $V_{RSM} \geq 1900\text{V}$ 20: $V_{RSM} \geq 2100\text{V}$
<u>JieJie Semiconductor Co., Ltd</u>	<u>Diode module</u>	<u>$I_D=200\text{A}$</u>		

Mechanical Characteristics(mm)



Performance Curves

FIG.1: Forward characteristics(per diode)

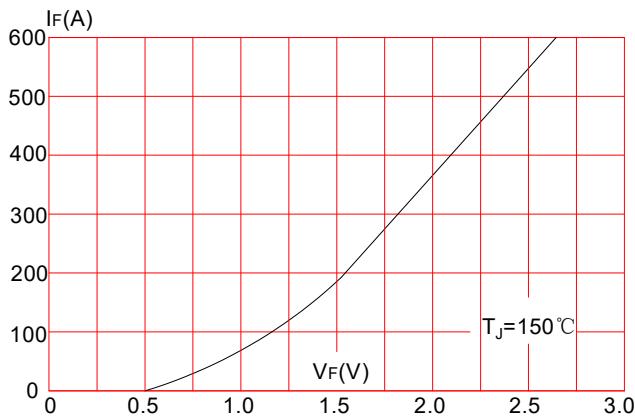


FIG.3: Forward current vs. case temperature

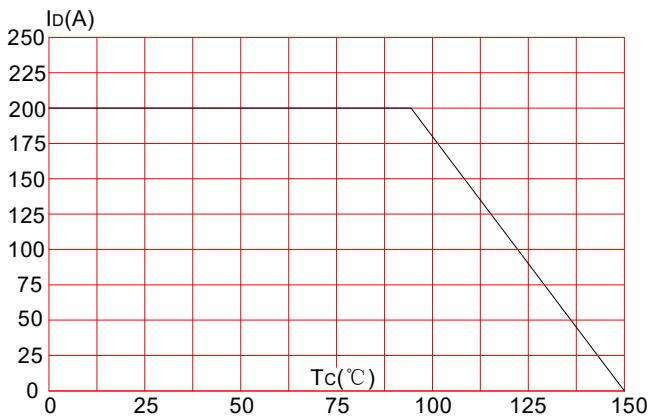


FIG.2: Peak on-state surge current

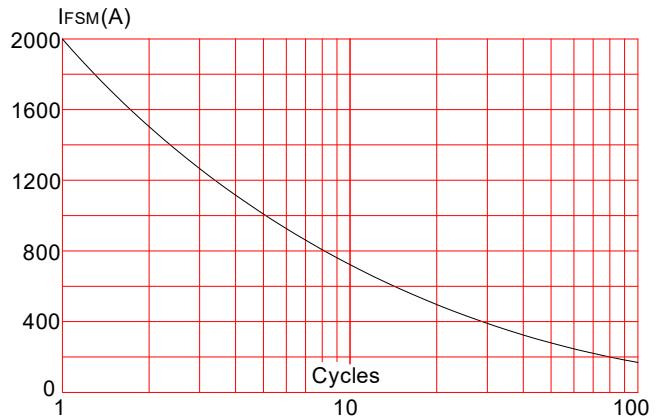
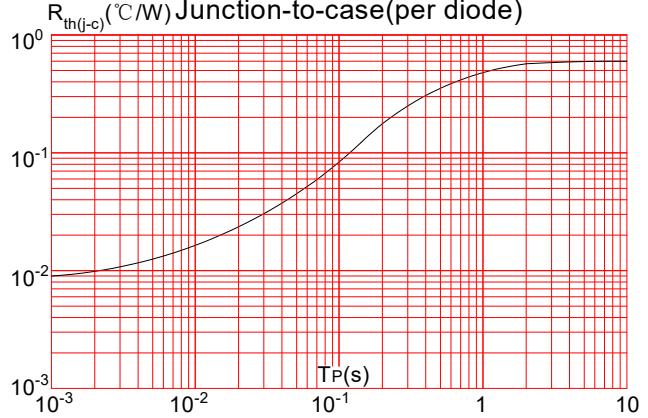


FIG.4: Maximum transient thermal impedance





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