

## JSD250

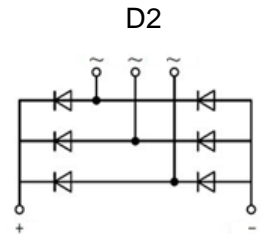
### Description

- 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



symbol

### Absolute Maximum Ratings (Packaged into D2, unless otherwise specified, T<sub>CASE</sub>=25°C)

Parameter	Test Conditions	Symbol	Values			Unit
			16	18	20	
Junction temperature range		T <sub>J</sub>	-40~+150			°C
Storage temperature range		T <sub>STG</sub>	-40~+125			°C
Repetitive peak reverse voltage		V <sub>RRM</sub>	1600	1800	2000	V
Non-repetitive peak reverse voltage		V <sub>RSM</sub>	1700	1900	2100	V
Output current	T <sub>C</sub> =95°C	I <sub>D</sub>	250			A
Forward surge current	1/2 cycle, Sine wave 50Hz, T <sub>J</sub> =25°C	I <sub>FSM</sub>	2800			A
Value for fusing		I <sup>2</sup> t	39200			A <sup>2</sup> s
RMS isolation voltage	A.C 50Hz(1s/1min)	V <sub>ISO</sub>	3600/3000			V



## Three Phase Rectifier Bridge Module

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

Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$I_F=250A, T_J=25^{\circ}C$	$V_{FM}$	-	1.35	1.55	V
Reverse leakage current	$V_R=V_{RRM}, T_J=25^{\circ}C$	$I_{RRM}$	-	-	0.5	mA
	$V_R=V_{RRM}, T_J=150^{\circ}C$		-	-	10	mA
Threshold voltage	$T_J=150^{\circ}C$ , for power loss calculation only	$V_{TO}$	-	-	0.85	V
Slope resistance		$r_T$	-	-	2.5	m $\Omega$

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

Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Thermal impedance (junction to case)	Per diode	$R_{th(j-c)}$	-	-	0.58	$^{\circ}C/W$
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			240			g
Case style			D2			

### Ordering Information

<u>JS</u> JieJie Semiconductor Co., Ltd Diode module	<u>D</u>	<u>250</u> $I_D=250A$	<u>/16</u> $16: V_{RRM} \geq 1600V$ $18: V_{RRM} \geq 1800V$ $20: V_{RRM} \geq 2000V$
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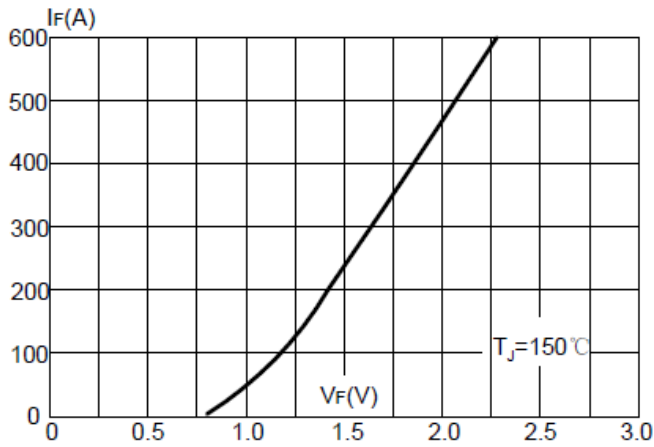




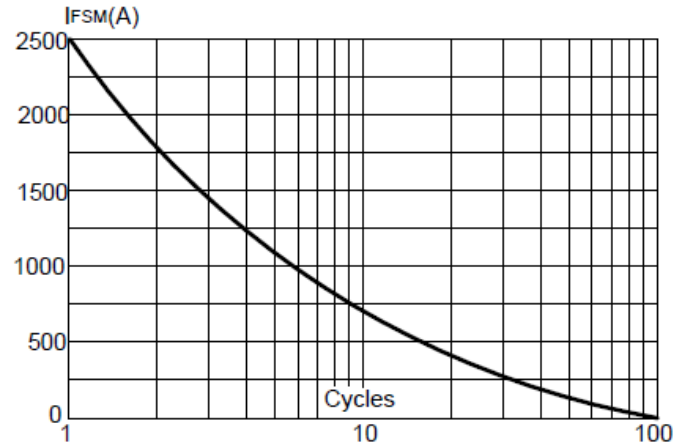
# Three Phase Rectifier Bridge Module

## Performance Curves

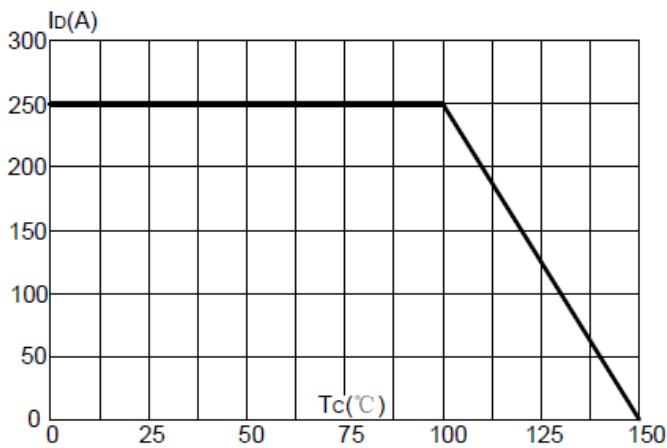
**FIG.1:** Forward characteristics(per diode)



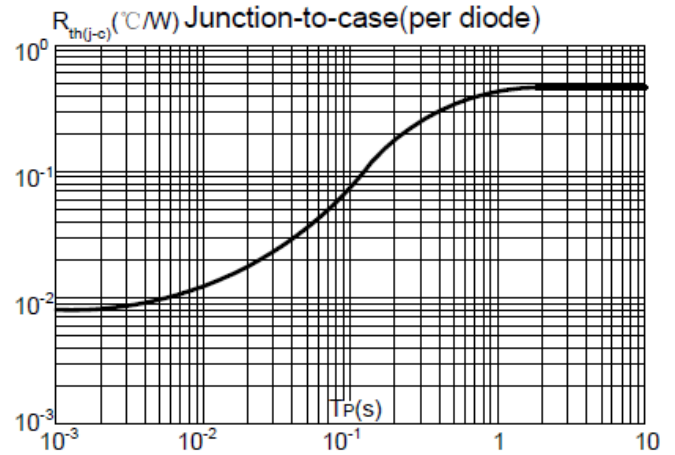
**FIG.2:** Peak on-state surge current



**FIG.3:** Forward current vs. case temperature



**FIG.4:** Maximum transient thermal impedance




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