

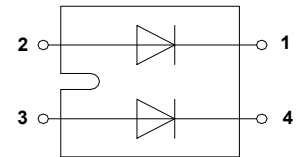
## JU100K2/06

### Description

- 1) Low forward voltage drop
- 2) Two fully independent diodes
- 3) Fully insulated package
- 4) Easy to use and parallel
- 5) Industry standard outline
- 6) Designed and qualified for industrial level



SOT-227



Symbol

### Typical Application

Optimized for power conversion: welding and industrial SMPS applications

### Absolute Maximum Ratings (Packaged into SOT-227, unless otherwise specified, $T_{CASE}=25^{\circ}C$ )

Parameter	Test Conditions	Symbol	Values	Unit
Junction temperature range		$T_J$	-40-150	$^{\circ}C$
Storage temperature range		$T_{STG}$	-40-150	$^{\circ}C$
Repetitive peak reverse voltage	$T_J=25^{\circ}C$	$V_{RRM}$	600	V
Non-repetitive peak reverse voltage	$T_J=25^{\circ}C$	$V_{RSM}$	600	V
Average forward current	$T_C=50^{\circ}C$ , per diode	$I_{F(AV)}$	100	A
Peak on-state surge current	$t_P=10ms, \sin 180^{\circ}, T_J=25^{\circ}C$	$I_{FSM}$	1000	A
$I^2t$ value	$t_P=10ms, \sin 180^{\circ}, T_J=25^{\circ}C$	$I^2t$	5000	$A^2s$
Maximum reverse recovery current	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=25^{\circ}C$	$I_{RM}$	10	A
	$I_F=50A, V_R=400V,$ $di/dt=200A/\mu s, T_J=125^{\circ}C$		18	
Maximum reverse recovery time	$I_F=1A, V_R=30V,$ $-di/dt=100A/\mu s, T_J=25^{\circ}C$	$t_{rr}$	42	ns
	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=25^{\circ}C$		75	
	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=125^{\circ}C$		120	
Maximum recovered charge	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=25^{\circ}C$	$Q_{rr}$	400	nC
	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=125^{\circ}C$		1100	
Isolation voltage	A.C 50Hz(1s/1min)	$V_{ISO}$	3000/2500	V



## Rectifier Diode Module

**Electrical Characteristics**(Packaged into SOT-227, unless otherwise specified,  $T_{CASE}=25^{\circ}C$ )

Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$I_F=100A, T_J=25^{\circ}C$	$V_F$	-	-	1.8	V
Reverse leakage current	$V_R=V_{RRM}, T_J=25^{\circ}C$	$I_R$	-	-	0.01	mA
	$V_R=V_{RRM}, T_J=150^{\circ}C$		-	-	1	mA

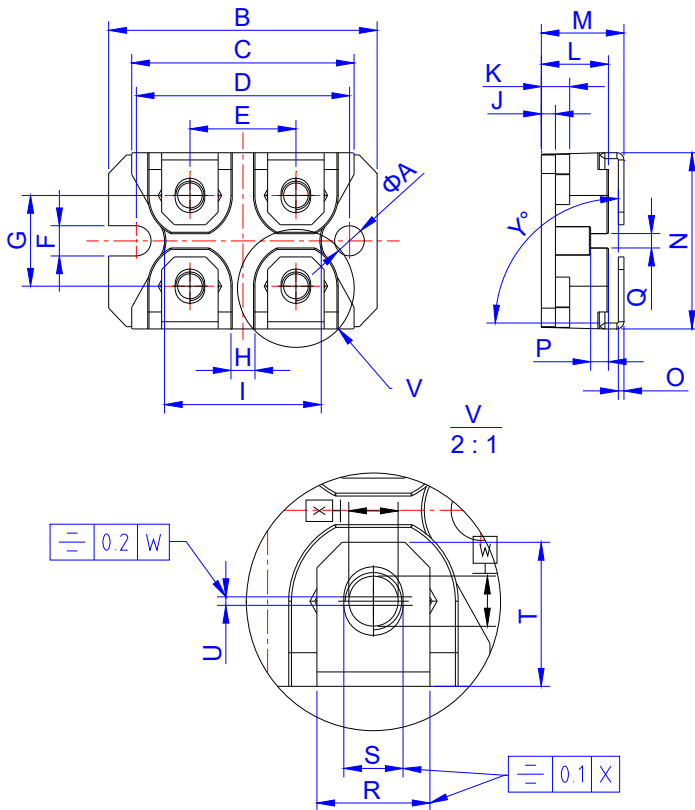
**Thermal Characteristics**(Packaged into SOT-227, unless otherwise specified,  $T_{CASE}=25^{\circ}C$ )

Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Junction to case(per diode)		$R_{th(j-c)}$	-	-	0.5	$^{\circ}C/W$
Case to heatsink		$R_{th(c-s)}$	-	0.125	-	
Weight			-	30	-	g
Mounting torque	Base plate to heatsink screw M4	M	1.0	-	1.5	N·m
	Electrode to terminal screw M4		1.0	-	1.5	N·m
Case style			SOT-227			

### Ordering Information

<p><b>J</b></p> <p>JieJie Semiconductor Co., Ltd.</p> <p>Superfast rectifier diode</p>	<p><b>U</b></p> <p>Dual circuit module</p>	<p><b>100</b></p> <p><math>I_{F(AV)}=100A</math></p>	<p><b>K2</b></p>	<p><b>/06</b></p> <p>06:<math>V_{RRM} \geq 600V</math></p>
----------------------------------------------------------------------------------------	--------------------------------------------	------------------------------------------------------	------------------	------------------------------------------------------------

## Mechanical Characteristics



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.1	4.2	4.4	0.161	0.165	0.173
B	38.0	38.2	38.4	1.496	1.504	1.512
C	31.1	31.5	31.9	1.224	1.240	1.256
D	30.1	30.2	30.3	1.185	1.189	1.193
E	14.8	15.0	15.2	0.583	0.591	0.598
F	4.1	4.2	4.4	0.161	0.165	0.173
G	12.3	12.5	12.7	0.484	0.492	0.500
H		4.2			0.165	
I		21.6			0.850	
J		2			0.079	
K		4.05			0.159	
L		9.5			0.374	
M	11.6	11.9	12.2	0.457	0.469	0.480
N	24.7	25.1	25.5	0.972	0.988	1.004
O		0.8			0.031	
P		2.6			0.102	
Q		1.7			0.067	
R		8			0.315	
S	4.1	4.2	4.4	0.161	0.165	0.173
T		10.7			0.421	
U		1			0.039	
Y	89°	90°	91°	89°	90°	91°

### Technical requirements:

1. Unmarked tolerances of dimension are performed in accordance with GB/T 1804-2000 Level C
2. Unmarked tolerances of form and position are performed in accordance with GB/T 1184-1996 Level L

## Package Information-SOT-227

OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON (PCS)
TUBE	8	80	800

Information furnished in this document is believed to be accurate and reliable. However, JieJie Semiconductor Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information.

This document is the 1.5th version which is made in 2-Nov.-2023. This document supersedes and replaces all information previously supplied.

is registered trademarks of JieJie Semiconductor Co., Ltd. Copyright©2023 Semiconductor Co., Ltd. Printed All rights reserved.