

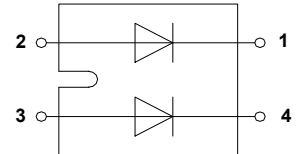
JU100K2/12

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}	1200	V
Non-repetitive peak reverse voltage	$T_J=25^{\circ}C$	V_{RSM}	1200	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}	850	A
I^2t value	$t_P=10ms, \sin 180^{\circ}, T_J=25^{\circ}C$	I^2t	3600	A^2s
Maximum reverse recovery current	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=25^{\circ}C$	I_{RM}	6	A
	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=125^{\circ}C$		27	
Maximum reverse recovery time	$I_F=1A, V_R=30V,$ $-di/dt=100A/\mu s, T_J=25^{\circ}C$	t_{rr}	45	ns
	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=25^{\circ}C$		220	
	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=125^{\circ}C$		370	
Maximum recovered charge	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=25^{\circ}C$	Q_{rr}	1500	nC
	$I_F=50A, V_R=400V,$ $-di/dt=200A/\mu s, T_J=125^{\circ}C$		5900	
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	-	2.4	3.0	V
Reverse leakage current	$V_R=V_{RRM}, T_J=25^{\circ}C$	I_R	-	-	0.02	mA
	$V_R=V_{RRM}, T_J=150^{\circ}C$		-	-	1	mA

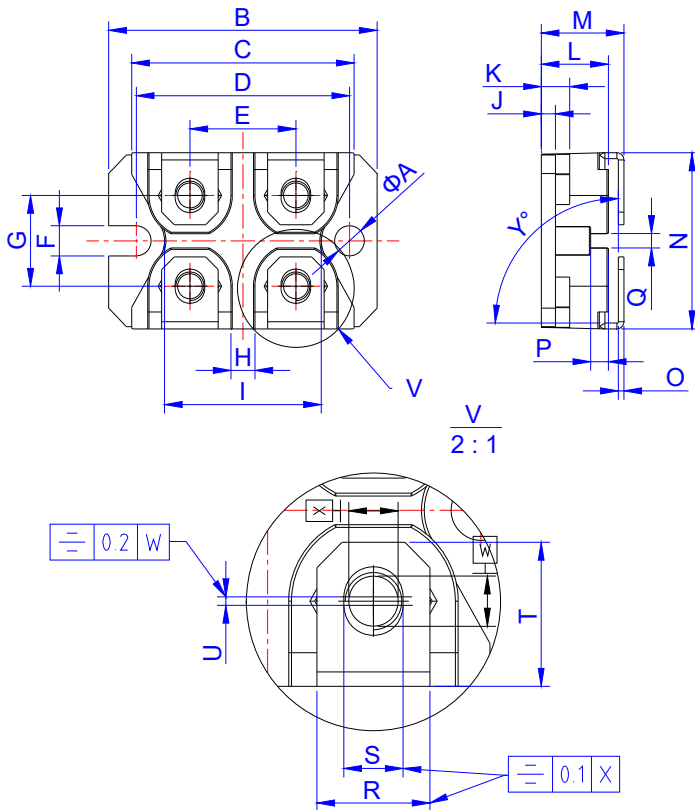
Thermal Characteristics(Packaged into SOT-227, unless otherwise specified, $T_{CASE}=25^{\circ}C$)

Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Junction to case	Per diode	$R_{th(j-c)}$	-	-	0.55	$^{\circ}C/W$
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>J</p> <p>JieJie Semiconductor Co., Ltd.</p> <p>Superfast rectifier diode</p>	<p>U</p>	<p>100</p> <p>$I_{F(AV)}=100A$</p>	<p>K2</p> <p>Dual circuit module</p>	<p>/12</p> <p>12: $V_{RRM} \geq 1200V$</p>
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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

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