

Super-Fast Rectifier -- 20Amp 200Volt

◆ **Features:**

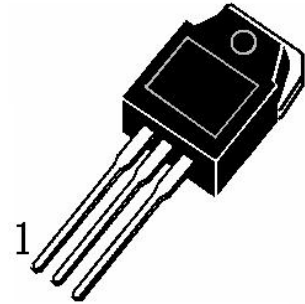
- ◇ Super fast recovery time. high voltage  
快恢复时间，高电压
- ◇ Low forward voltage drop  
正向压降低
- ◇ High efficiency and low power loss  
高效低功耗
- ◇ High volume of current and good capability of surge current  
大电流浪涌能力强

◆ **Applications**

- ◇ High frequency rectifier of switching mode power supplies  
高频整流器开关电源
- ◇ Freewheeling diodes  
续流二极管
- ◇ Polarity protection application  
极性保护应用
- ◇ DC-DC converters  
直流-直流变换器

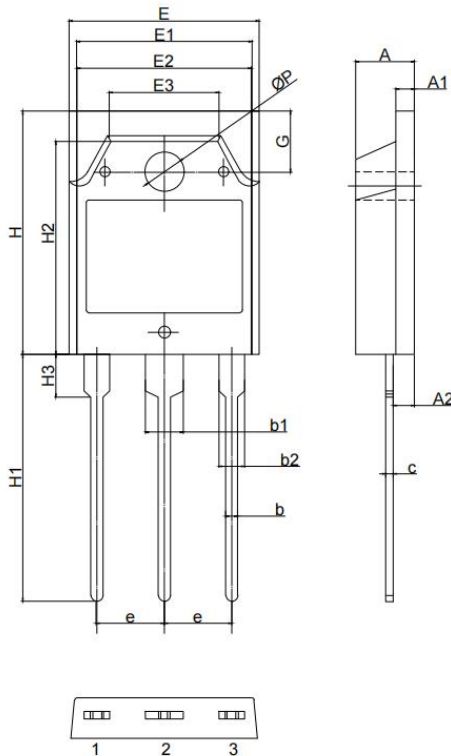
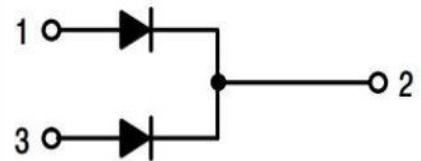


**TO-3PNB**



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**PIN CONNECTIONS**



Symbol	Min	Nom	Max
A	4.60	4.80	5.00
A1	1.30	1.50	1.60
A2	1.40	1.50	1.60
b	0.80	1.00	1.20
b1	2.90	3.10	3.30
b2	1.90	2.10	2.30
c	0.50	0.60	0.70
e	5.25	5.45	5.65
E	15.20	15.60	16.00
E1	13.20	13.40	13.60
E2	13.10	13.50	13.50
E3	9.10	9.30	9.50
H	19.80	20.00	20.20
H1	20.10	20.30	20.50
H2	18.50	18.70	18.90
H3	3.20	3.50	3.80
G	4.80	5.00	5.20
ØP	3.00	3.20	3.40

**◆ Absolute Maximum Ratings (Tc=25°C)**

Symbol	Parameters	Ratings	Unit
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage 最大反向重复峰值电压	<b>200</b>	V
V <sub>RWM</sub>	Working peak reverse voltage 反向峰值工作电压	<b>200</b>	V
V <sub>R</sub>	Maximum DC blocking voltage 最大直流反向电压	<b>200</b>	V
I <sub>F(AV)</sub>	Maximum average forward rectified current Total device 最大正向平均电流	<b>20</b>	A
I <sub>FSM</sub>	Peak Forward Surge Current 正向峰值浪涌电流	<b>200</b>	A
T <sub>j</sub>	Operating junction temperature range 结温	<b>175</b>	°C
T <sub>stg</sub>	Storage temperature range 贮存温度	<b>-55~175</b>	°C

**◆ Electrical characteristics**

Symbol	Parameters	Min	Typical	Max	Units	Conditions
I <sub>R</sub>	Maximum Reverse Leakage Current (Note 1) 最大反向瞬态电流	--	--	<b>2</b>	μA	V <sub>R</sub> =200V, T <sub>C</sub> = 25 °C
V <sub>F</sub>	Maximum Instantaneous Forward Voltage (Note 2) 最大瞬态正向压降	--	<b>0.91</b>	<b>0.975</b>	V	I <sub>F</sub> = 20 A, T <sub>C</sub> = 25 °C
R <sub>th(j-c)</sub>	Typical Thermal Resistance, Junction to Case 结到外壳的典型热阻	--	--	<b>0.5</b>	°C/W	
dV/dt	Voltage Rate of Change 电压变化率	--	--	<b>10000</b>	V/μs	
T <sub>rr</sub>	Maximum Reverse recovery time 最大反转恢复时间	--	<b>22</b>	--	ns	I <sub>F</sub> =1A V <sub>R</sub> =30V, di/dt=-200A/μs

Note 1: 2.0us Pulse Width, f=1.0KHz

Note 2: Pulse Test : 300us Pulse Width, 1% Duty Cycle