

Avalanche Rectifier

$$V_{RRM} = 1800 \text{ V}$$

$$I_{FAV} = 2 \times 100 \text{ A}$$

$$V_F = 1.21 \text{ V}$$

Anti-parallel legs

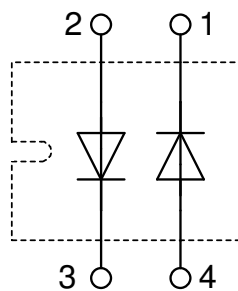
Part number

DAA200XA1800NA



Backside: isolated

 E72873



Features / Advantages:

- Avalanche rated
- Planar passivated chips
- Very low leakage current
- Very low forward voltage drop
- Improved thermal behaviour

Applications:

- Diode for main rectification
- For single and three phase bridge configurations

Package: SOT-227B (minibloc)

- Isolation Voltage: 3000 V~
- Industry standard outline
- RoHS compliant
- Epoxy meets UL 94V-0
- Base plate: Copper
- internally DCB isolated
- Advanced power cycling

Terms .Conditions of usage:

The data contained in this product data sheet is exclusively intended for technically trained staff. The user will have to evaluate the suitability of the product for the intended application and the completeness of the product data with respect to his application. The specifications of our components may not be considered as an assurance of component characteristics. The information in the valid application- and assembly notes must be considered. Should you require product information in excess of the data given in this product data sheet or which concerns the specific application of your product, please contact the sales office, which is responsible for you.

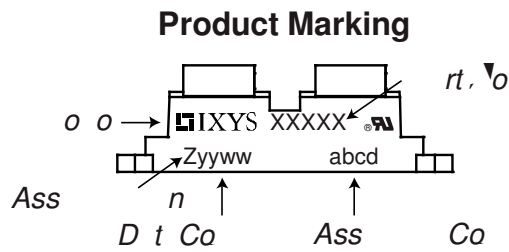
Due to technical requirements our product may contain dangerous substances. For information on the types in question please contact the sales office, which is responsible for you.

Should you intend to use the product in aviation, in health or live endangering or life support applications, please notify. For any such application we urgently recommend

- to perform joint risk and quality assessments;
- the conclusion of quality agreements;
- to establish joint measures of an ongoing product survey, and that we may make delivery dependent on the realization of any such measures.

Rectifier				Ratings			
Symbol	Definition	Conditions	min.	typ.	max.	Unit	
V_{RSM}	non repetitive reverse voltage	$T_{VJ} = 25^{\circ}C$			1900	V	
V_{RRM}	repetitive reverse voltage	$T_{VJ} = 25^{\circ}C$			1800	V	
I_R	reverse current	$V_R = 1800 V$	$T_{VJ} = 25^{\circ}C$		200	μA	
		$V_R = 1800 V$	$T_{VJ} = 150^{\circ}C$		2	mA	
V_F	forward voltage drop	$I_F = 100 A$	$T_{VJ} = 25^{\circ}C$		1.24	V	
		$I_F = 200 A$			1.55	V	
		$I_F = 100 A$	$T_{VJ} = 125^{\circ}C$		1.21	V	
		$I_F = 200 A$			1.61	V	
I_{FAV}	average forward current	$T_C = 100^{\circ}C$ rectangular $d = 0.5$	$T_{VJ} = 150^{\circ}C$		100	A	
V_{FO} r_F	forward voltage drop } or forward resistance		$T_{VJ} = 150^{\circ}C$		0.80 4	V m	
R_{thJC}	junction to case thermal resistance				0.3	K/W	
R_{thCH}	junction to heat sink thermal resistance			0.10		K/W	
P_{tot}	total power dissipation		$T_C = 25^{\circ}C$		415	W	
I_{FSM}	forward surge current	$t = 10 ms; (50 Hz), sine$	$T_{VJ} = 45^{\circ}C$		1.50	kA	
		$t = 8,3 ms; (60 Hz), sine$	$V_R = 0 V$		1.62	kA	
		$t = 10 ms; (50 Hz), sine$	$T_{VJ} = 150^{\circ}C$		1.28	kA	
		$t = 8,3 ms; (60 Hz), sine$	$V_R = 0 V$		1.38	kA	
I^2t	forward surge energy	$t = 10 ms; (50 Hz), sine$	$T_{VJ} = 45^{\circ}C$		11.3	kA^2s	
		$t = 8,3 ms; (60 Hz), sine$	$V_R = 0 V$		10.9	kA^2s	
		$t = 10 ms; (50 Hz), sine$	$T_{VJ} = 150^{\circ}C$		8.13	kA^2s	
		$t = 8,3 ms; (60 Hz), sine$	$V_R = 0 V$		7.87	kA^2s	
C_J	junction capacitance	$V_R = 400 V; f = 1 MHz$	$T_{VJ} = 25^{\circ}C$	53		pF	
P_{RSM}	reverse surge power	$t_p = 10 \mu s$	$T_{VJ} = 150^{\circ}C$		20	kW	

Ratings



Part description

- D = Diode
- A = Avalanche Rectifier
- A = (up to 1800V)
- 200
- XA Anti-parallel legs
- 1800
- NA SOT-227B (minibloc)

DAA200XA1800NA	SOT-227B (minibloc)
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Outlines SOT-227B (minibloc)

