

OR-ing Power Schottky Rectifier

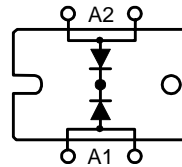
Non isolated

$$I_{FAVM} = 2x200 \text{ A}$$

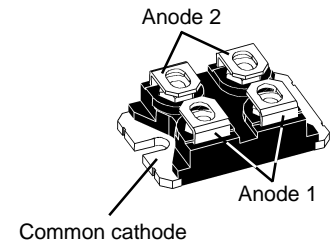
$$V_{RRM} = 8 \text{ V}$$

$$V_F = 0.15 \text{ V}$$

V_{RSM}	V_{RRM}	Type
V	V	
8	8	DSS 2x200-0008D



miniBLOC, SOT-227 B



Symbol	Conditions	Maximum Ratings	
I_{FRMS}		200	A
I_{FAVM}	$T_C = 100^\circ\text{C}$; rectangular, $d = 0.5$	200	A
I_{FAVM}	$T_C = 100^\circ\text{C}$; rectangular, $d = 0.5$; per device	400	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t_p = 10 \text{ ms}$ (50 Hz), sine	1600	A
E_{AS}	$I_{AS} = \text{tbd}$; $L = 180 \mu\text{H}$; $T_{VJ} = 25^\circ\text{C}$; non repetitive	tbd	mJ
I_{AR}	$V_A = 1.5 \cdot V_{RRM}$ typ.; $f = 10 \text{ kHz}$; repetitive	tbd	A
$(dv/dt)_{cr}$		5000	V/ μs
T_{VJ}		-40...+150	$^\circ\text{C}$
T_{VJM}		150	$^\circ\text{C}$
T_{stg}		-40...+150	$^\circ\text{C}$
P_{tot}	$T_C = 25^\circ\text{C}$	310	W
M_d	mounting torque (M4)	1.1-1.5/9-13	Nm/lb.in.
	terminal connection torque (M4)	1.1-1.5/9-13	Nm/lb.in.
Weight	typical	30	g

Features

- International standard package miniBLOC
- Epoxy meets UL 94V-0
- Very low V_F
- Extremely low switching losses
- Low I_{RM} -values

Applications

- Rectifiers in switch mode power supplies (SMPS)
- Free wheeling diode in low voltage converters

Advantages

- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

Dimensions see IXYS Data Book 2001 pages D2 - 87-88

Symbol	Conditions	Characteristic Values	
		typ.	max.
I_R ①	$T_{VJ} = 25^\circ\text{C}$; $V_R = V_{RRM}$	400	mA
	$T_{VJ} = 100^\circ\text{C}$; $V_R = V_{RRM}$	3000	mA
V_F	$I_F = 100 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$	0.23	V
	$T_{VJ} = 25^\circ\text{C}$	0.34	V
	$I_F = 200 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$	0.34	V
	$I_F = 100 \text{ A}$; $T_{VJ} = 150^\circ\text{C}$; per device	0.15	V
R_{thJC}		0.4	K/W
R_{thCH}	0.15		K/W

Pulse test: ① Pulse Width = 5 ms, Duty Cycle < 2.0 %
Data according to IEC 60747 and per diode unless otherwise specified

IXYS reserves the right to change limits, Conditions and dimensions.