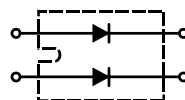


Power Schottky Rectifier

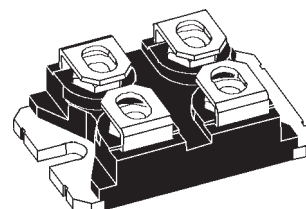
$$\begin{aligned} I_{FAVM} &= 2 \times 110 \text{ A} \\ V_{RRM} &= 80 \text{ V} \\ V_F &= 0.72 \text{ V} \end{aligned}$$

Preliminary data

V_{RSM}	V_{RRM}	Type
V	V	
80	80	DSS 2x111-008A



miniBLOC, SOT-227 B



Symbol	Conditions	Maximum Ratings	
I_{FRMS}		150	A
I_{FAVM}	$T_C = 105^\circ\text{C}$; rectangular, $d = 0.5$	110	A
I_{FAVM}	$T_C = 105^\circ\text{C}$; rectangular, $d = 0.5$; per device	220	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t_p = 10 \text{ ms}$ (50 Hz), sine	1400	A
E_{AS}	$I_{AS} = 14$; $L = 180 \mu\text{H}$; $T_{VJ} = 25^\circ\text{C}$; non repetitive	19	mJ
I_{AR}	$V_A = 1.5 \cdot V_{RRM}$ typ.; $f = 10 \text{ kHz}$; repetitive	1.4	A
$(dv/dt)_{cr}$		tbd	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
V_{ISOL}	$I_{ISOL} \leq 1 \text{ mA}$; 50/60 Hz; $t = 1 \text{ min}$	2500	V~
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
- Isolation voltage 2500 V~
- UL registered E 72873
- 2 independent Schottky diodes in 1 package
- 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 Outlines.pdf

Symbol	Conditions	Characteristic Values	
		typ.	max.
I_R ①	$T_{VJ} = 25^\circ\text{C}$; $V_R = V_{RRM}$ $T_{VJ} = 125^\circ\text{C}$; $V_R = V_{RRM}$	8 20	mA mA
V_F	$I_F = 100 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$ $T_{VJ} = 25^\circ\text{C}$ $I_F = 200 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$	0.72 0.84 0.94	V V V
R_{thJC} R_{thCH}	0.15	0.4	K/W K/W

Pulse test: ① Pulse Width = 5 ms, Duty Cycle < 2.0 %

Data according to IEC 60747 and per diode unless otherwise specified

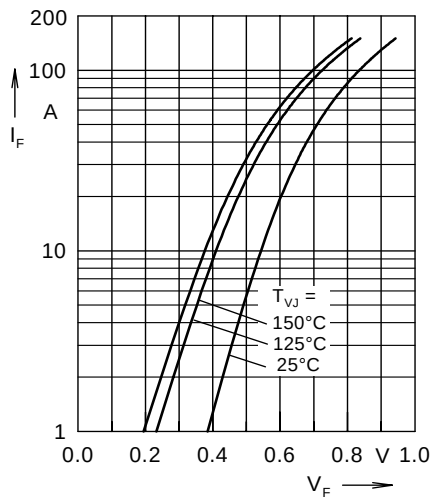


Fig. 1 Maximum forward voltage drop characteristics

Note: All curves are per diode.
Curves 2 and 5 will follow.

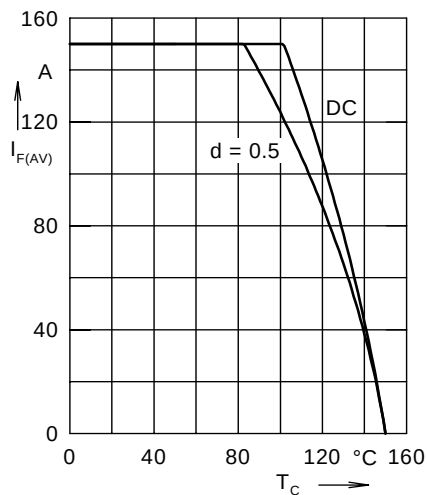


Fig. 3 Average forward current $I_{F(AV)}$ versus case temperature T_C

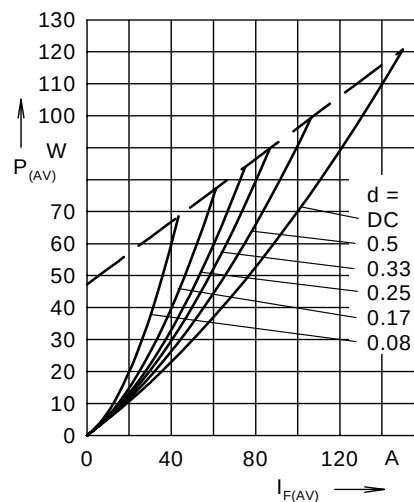


Fig. 4 Forward power loss characteristics

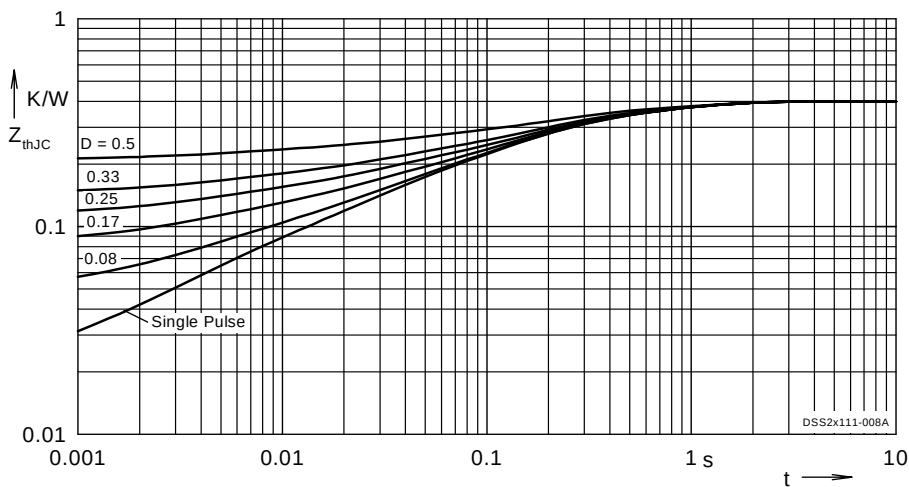


Fig. 6 Transient thermal impedance junction to case at various duty cycles