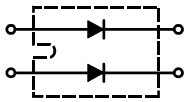
Power Schottky Rectifier

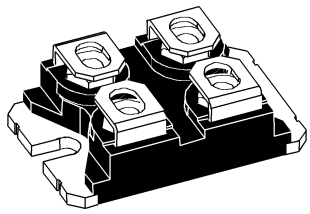
I_{FAV} = 2x100 A
V_{RRM} = 150 V
V_F = 0.78 V

Preliminary Data

V_{RSM} V	V_{RRM} V	Type
150	150	DSS 2x101-015A



miniBLOC, SOT-227 B



Symbol	Conditions	Maximum Ratings	
I_{FRMS}		150	A
I_{FAVM}	T_C = 110°C; rectangular, d = 0.5	100	A
I_{FAVM}	T_C = 110°C; rectangular, d = 0.5; per device	200	A
I_{FSM}	T_{VJ} = 45°C; t_p = 10 ms (50 Hz), sine	1200	A
E_{AS}	I_{AS} = tbd A; L = 180 µH; T_{VJ} = 25°C; non repetitive	tbd	mJ
I_{AR}	V_A =1.5 • V_{RRM} typ.; f=10 kHz; repetitive	tbd	A
$(dv/dt)_{cr}$		18000	V/µs
T_{VJ}		-40...+150	°C
T_{VJM}		150	°C
T_{stg}		-40...+150	°C
P_{tot}	T_C = 25°C	310	W
V_{ISOL}	50/60 Hz, RMS I_{ISOL} ≤ 1 mA	2500	V~
M_d	mounting torque (M4) terminal connection torque (M4)	1.1-1.5/9-13 1.1-1.5/9-13	Nm/lb.in. Nm/lb.in.
Weight	typical	30	g

Symbol	Conditions	Characteristic Values typ.	max.	
I_R ①	T_{VJ} = 25°C V_R = V_{RRM}		4	mA
	T_{VJ} = 125°C V_R = V_{RRM}		40	mA
V_F	I_F = 100 A; T_{VJ} = 125°C		0.78	V
	I_F = 100 A; T_{VJ} = 25°C		0.90	V
	I_F = 200 A; T_{VJ} = 125°C		0.99	V
R_{thJC}			0.4	K/W
R_{thCH}		0.1		K/W

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

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.

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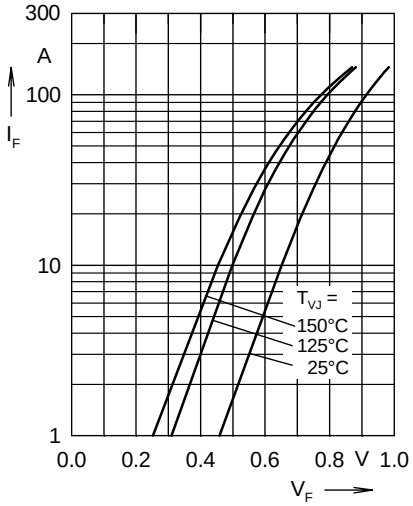

Fig. 1 Maximum forward voltage drop characteristics

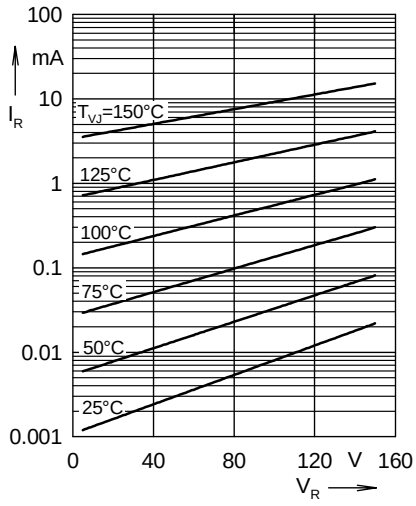

Fig. 2 Typ. value of reverse current I_R versus reverse voltage V_R

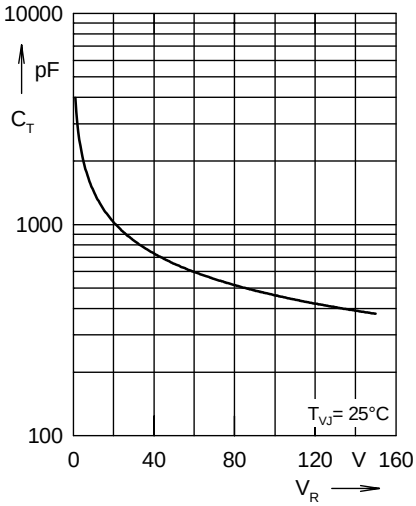

Fig. 3 Typ. junction capacitance C_T versus reverse voltage V_R

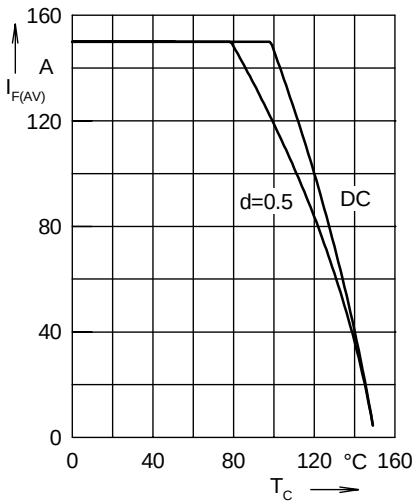

Fig. 4 Average forward current $I_{F(AV)}$ versus case temperature T_C

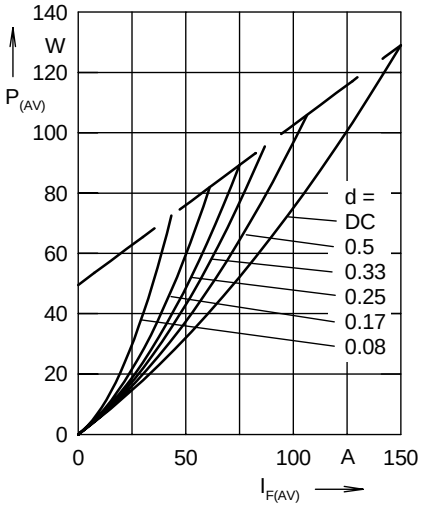

Fig. 5 Forward power loss characteristics

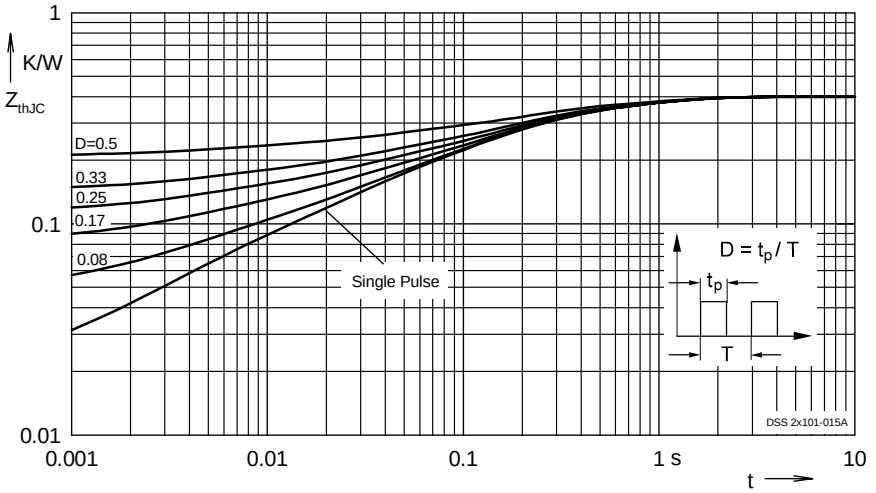

Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode

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