

Power Schottky Rectifier ,200A

Features


- International standard package SOT-227
- Very low V_F
- Extremely low switching losses
- Low I_{RM} -values
- Copper internally DBC isolated
- Insulated package($V_{ISO} = 2500V_{RMS}$)

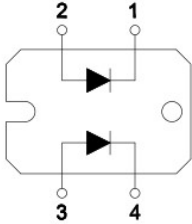
Applications

- 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





DW

$I_{FAV} = 2 \times 100A$
 $V_{RRM} = 200 V$
 $V_F = 0.82V$

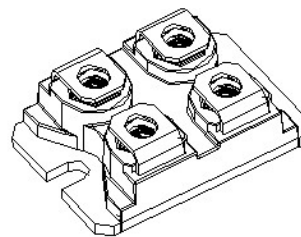
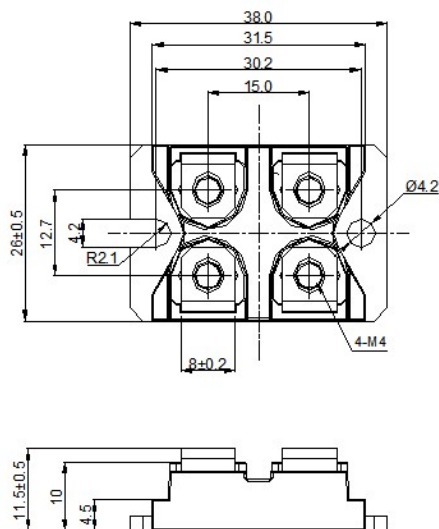
Maximum Ratings				
Symbol	Test Conditions	Ratings	Units	
I_{FRMS}		150	A	
I_{FAVM}	$T_C = 105^\circ C$; Rectangular, $d=0.5$; per diode	100		
	$T_C = 105^\circ C$; Rectangular, $d=0.5$; per module	200		
I_{FSM}	$T_{VJ} = 45^\circ C$; $t_p = 10$ ms (50 Hz), sine	1400		
E_S	$I_{AS} = 20A$; $L = 180\mu H$; $T_{VJ} = 25^\circ C$; non repetitive	0.51	mJ	
I_{AR}	$V_A = 1.5 \cdot V_{RRM}$ typ.; $f=10kHz$; repetitive	2.5	A	
T_{VJ}		-40~+150	°C	
T_{stg}		-40~+150		
P_{tot}	$T_C = 25^\circ C$	350	W	
M_d	Mounting torque(M4)	1.1~1.5	Nm	
	Terminal connection torque(M4)	1.1~1.5		
Weight	Typical	30	g	
V_{ISOL}	50/60Hz, RMS, $I_{isol} < 1mA$	1second	3000	V
		1minute	2500	

Electrical and Thermal Characteristic

Symbol	Test Conditions	Values		Units
		Typ.	Max.	
I_R	$V_R=V_{RRM}; T_{VJ}=25^{\circ}\text{C}$ (Pulse Width=5ms, Duty Cycle<2.0%)		2	mA
	$V_R=V_{RRM}; T_{VJ}=125^{\circ}\text{C}$ (Pulse Width=5ms, Duty Cycle<2.0%)		40	
V_F	$I_F=100\text{A}; T_{VJ}=125^{\circ}\text{C}$		0.82	V
	$I_F=100\text{A}; T_{VJ}=25^{\circ}\text{C}$		0.92	
	$I_F=200\text{A}, T_{VJ}=125^{\circ}\text{C}$		1.10	
R_{thJC}	Junction to case	Par leg	0.90	$^{\circ}\text{C/W}$
		Total	0.4	
R_{thCH}		0.10		

Package Outline Information

SOT-227 Package



Dimensions in mm