

### Features


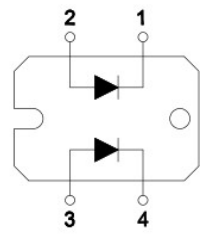
- International standard package SOT-227
- Very low  $V_F$
- Extremely low switching losses
- Low  $I_{RM}$ -values
- Copper internally DBC isolated
- Insulated package( $V_{ISO} = 2500V_{RMS}$ )

### 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**

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

$V_{RRM} = 200 V$

$V_F = 0.82V$

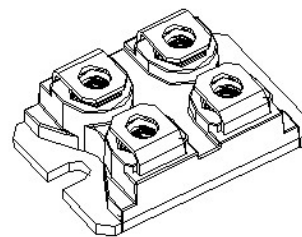
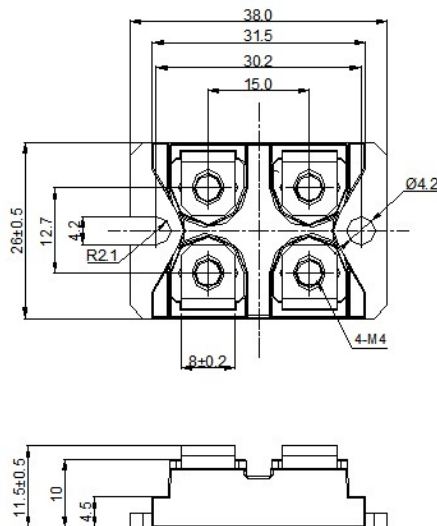
Maximum Ratings				
Symbol	Test Conditions	Ratings	Units	
$I_{FRMS}$		150	A	
$I_{FAVM}$	$T_C = 105^\circ C$ ; Rectangular, $d=0.5$ ; per diode	100		
	$T_C = 105^\circ C$ ; Rectangular, $d=0.5$ ; per module	200		
$I_{FSM}$	$T_{VJ} = 45^\circ C$ ; $t_p = 10$ ms (50 Hz), sine	1400		
$E_S$	$I_{AS} = 20A$ ; $L = 180\mu H$ ; $T_{VJ} = 25^\circ C$ ; 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	$^{\circ}\text{C}/\text{W}$
		Total		0.4	
$R_{thCH}$		0.10			

### Package Outline Information

#### SOT-227 Package



Dimensions in mm