

## Power Schottky Rectifier Module, 2\*120A

### 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

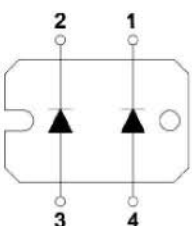
- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

$I_{FAV} = 2 \times 120A$

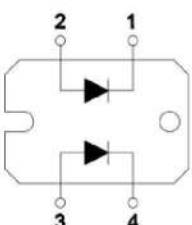
$V_{RRM} = 200V$

$V_F = 0.85V$





**K1**



**K2**

Maximum Ratings				
Symbol	Test Conditions	Ratings	Units	
$I_{FRMS}$		150	A	
$I_{FAVM}$	$T_C = 105^\circ C$ ; Rectangular, $d=0.5$ ; per diode	120		
	$T_C = 105^\circ C$ ; Rectangular, $d=0.5$ ; per module	240		
$I_{FSM}$	$T_{VJ} = 45^\circ C$ ; $t_p = 10$ ms (50 Hz), sine	1600		
$E_S$	$I_{AS} = 20A$ ; $L = 180\mu H$ ; $T_{VJ} = 25^\circ C$ ; 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	

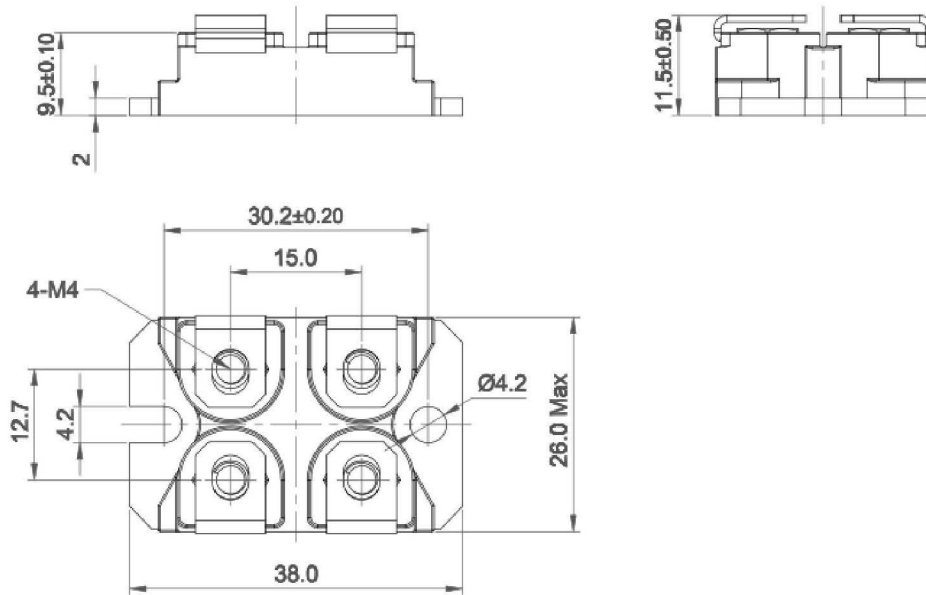
Electrical and Thermal Characteristic					
Symbol	Test Conditions		Values		Units
			Typ.	Max.	
I <sub>R</sub>	V <sub>R</sub> =V <sub>RRM</sub> ; T <sub>VJ</sub> =25°C(Pulse Width=5ms,Duty Cycle<2.0%)			2	mA
	V <sub>R</sub> =V <sub>RRM</sub> ; T <sub>VJ</sub> =125°C(Pulse Width=5ms,Duty Cycle<2.0%)			40	
V <sub>F</sub>	I <sub>F</sub> =120A; T <sub>VJ</sub> =125°C			0.85	V
	I <sub>F</sub> =120A; T <sub>VJ</sub> =25°C			0.95	
	I <sub>F</sub> =240A, T <sub>VJ</sub> =125°C			1.2	
R <sub>thJC</sub>	Junction to case	Par leg		0.90	°C/W
		Total		0.4	
R <sub>thCH</sub>			0.10		

Ordering Information Tabel	
Device code	
	<b>K2   S   240   -   200</b>
Circuit configuration	
K1=2 separate diodes, syntropy pin-out	
K2=2 separate diodes, parallel pin-out	
“S” for Schottky rectifier	
Maximum average forward current (2X120A)	
Voltage rating (200= 200V)	



Package Outline Information

SOT-227 Package



Dimensions in mm