

FEATURES

- International standard package SOT-227
- Very low V_F
- Extremely low switching losses
- Low I_R values
- Copper internally DBC isolated
- Insulated package ($V_{ISO} = 2500V_{RMS}$)
- AEC-Q101 qualified and PPAP capable



AEC-Q101 Qualified

APPLICATIONS

- Rectifiers in switch mode power Supplies (SMPS)
- Free wheeling diode in low voltage converters

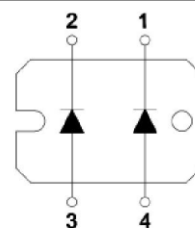
ADVANTAGES

- High reliability circuit operation
- protection circuits
- Low noise switching
- Low losses

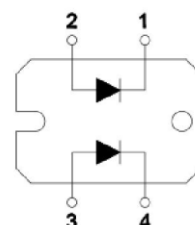
$$I_{F(AV)} = 2 \times 100A$$

$$V_{RRM} = 170V$$

$$V_F = 0.65V$$



K1



K2

MAXIMUM RATINGS

Symbol	Test Conditions	Ratings	Units
$I_{F(AV)}$	$T_C = 115^\circ\text{C}$, Rectangular, $D = 0.5$, Per diode	100	A
	$T_C = 115^\circ\text{C}$, Rectangular, $D = 0.5$, Per module	200	
I_{FSM}	$T_J = 25^\circ\text{C}$, $t = 8.3\text{ms}$, half Sine Wave, Per diode	700	
T_J		$-40 \sim +175$	$^\circ\text{C}$
T_{STG}		$-55 \sim +175$	
P_{tot}	$T_C = 25^\circ\text{C}$	312.5	W
M_d	Mounting torque (M4)	1.1~1.5	Nm
	Terminal connection torque (M4)	1.1~1.5	
Weight	Typical	30	g
V_{ISO}	50/60Hz, RMS, $I_{iso} < 1\text{mA}$, 1 minute	2500	V

ELECTRICAL AND THERMAL CHARACTERISTIC					
Symbol	Test Conditions		Values		Units
			Typ.	Max.	
$I_R^{2)}$	$V_R=100V, T_J=25^{\circ}C$		-	0.1	mA
	$V_R=100V, T_J=125^{\circ}C$		-	50	
$V_F^{1)}$	$I_F=100A, T_J=25^{\circ}C$		0.83	0.86	V
	$I_F=100A, T_J=150^{\circ}C$		0.65	0.70	
$R_{\theta JC}$	Junction to case	Per diode	-	0.4	$^{\circ}C/W$
		Per module	-	0.2	

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle
2.Pulse test: pulse width $\leq 40ms$

FIG.1-TYPRCAL FORWARD CURRENT DERATING CURVE

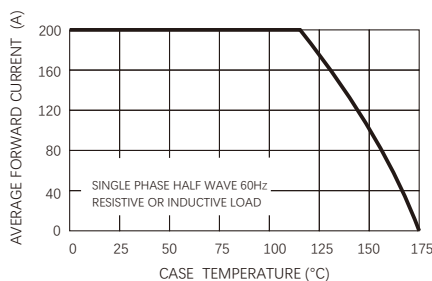


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

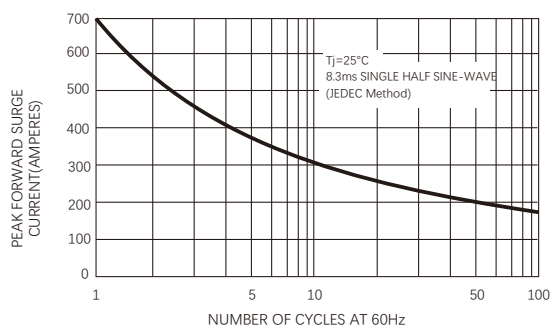


FIG.3-TYPICAL FORWARD CHARACTERISTICS

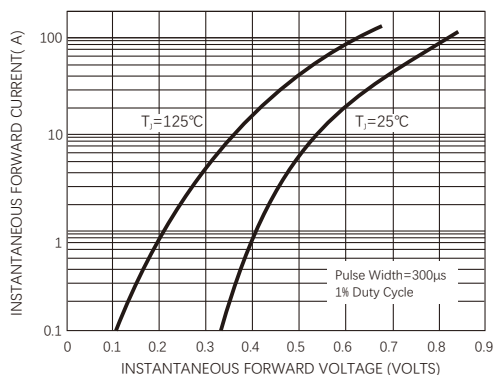
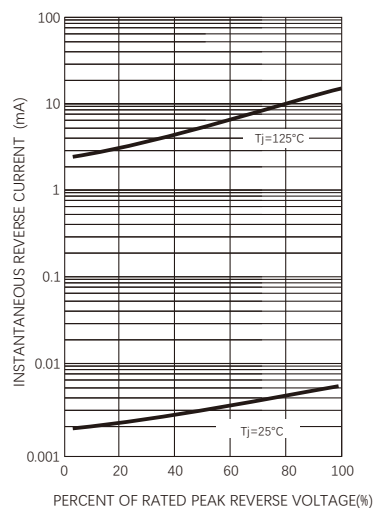


FIG.4-TYPICAL REVERSE CHARACTERISTICS



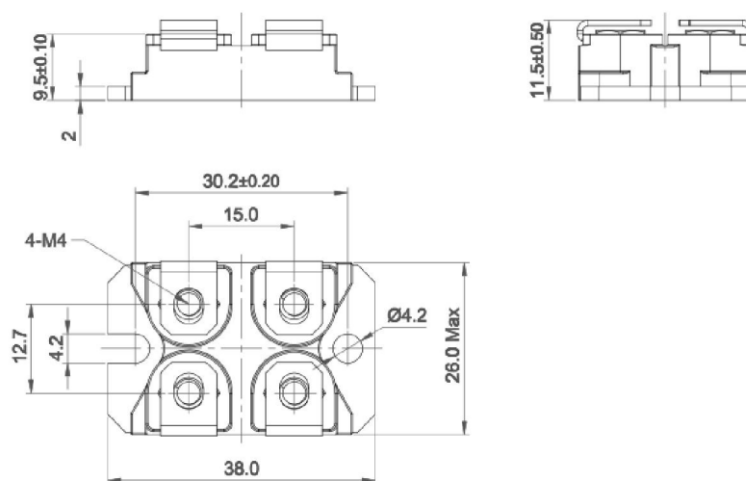
Ordering Information Tabel

Device code

	J	K2	S	200	-	170	-V
JF'S power module							
Circuit configuration							
K1=2 separate diodes, syntropy pin-out							
K2=2 separate diodes, parallel pin-out							
"S" for Schottky rectifier							
Maximum average forward current (200A)							
Voltage rating (170= 170V)							
For Automotive grade (-V)							

Packag e Outline Information

SOT-227 Package



Dimensions in mm

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