

FEATURES

- International standard package SOT-227
- Fast switching for high efficiency
- Low forward voltage drop
- Single rectifier construction
- High surge capability
- Component in accordance to RoHS 2015/863/EU

MECHANICAL DATA

- Case: SOT-227
- Molding compound meets UL94V-0 flammability rating
- Polarity: As marked

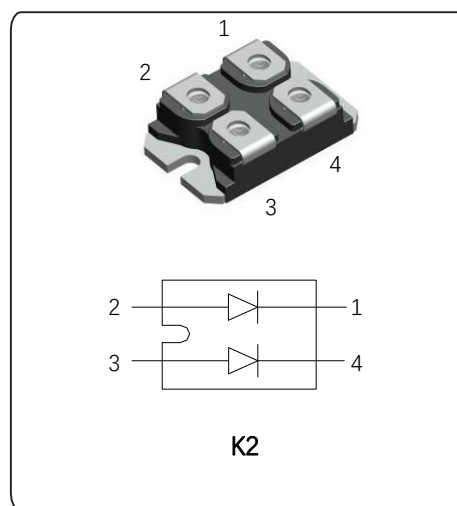
TYPICAL APPLICATIONS

- Antiparallel diode for high frequency switching devices
- Antisaturation diode
- Snubber diode
- Free wheeling diode
- Rectifiers in switch mode power supplies (SMPS)
- Uninterruptible power supplies (UPS)

ABSOLUTE MAXIMUM RATINGS

Parameters	Symbol	Test conditions	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}		1200	V
Maximum Continuous forward current, per diode	I_F	$T_c \leq 80^\circ\text{C}$	100	A
Single pulse forward current, per diode	I_{FSM}	$T_c = 25^\circ\text{C}$	900	A
RMS isolation voltage	V_{iso}	Any terminal to case, $t=1\text{S}$	3000	V
Maximum junction temperature	T_J		150	$^\circ\text{C}$
Maximum reverse recovery time	T_{rr}	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$	150	nS
Maximum case temperature, Storage temperture	T_c, T_{stg}		-55 ~ 150	$^\circ\text{C}$

SOT-227



ELECTRICAL CHARACTERISTICS

Parameters	Symbol	Test conditions	Min	Typ	Max	Units
Cathode to anode break down voltage	V _{BR}	I _R =100μA	1200	-	-	V
Forward voltage	V _F	I _F =100A T _J =25°C		1.72	2.00	
		I _F =100A T _J =125°C		-	1.90	
Reverse leakage current	I _R	V _R =V _R rated T _J =25°C		-	10	uA
		V _R =V _R rated T _J =150°C		-	200	
Total Capacitance	C _j	V _R =4V T _J =25°C,f=1MHz		440		pF

THERMAL MECHANICAL SPECIFICATIONS

Parameters	Symbol	Test conditions	Min	Typ	Max	Units
Junction to case,single leg conducting	R _{thjc}		-	-	0.50	°C/W
Junction to case,both leg conducting			-	-	0.25	
Case to heatsink	R _{thcs}	Flat,greased surface		0.10		
Weight				30		g
Mounting torque				1.3		Nm
Case style			SOT-227			

ORDERING INFORMATION TABEL

Device code

J	K2	F	200	-	120
①	②	③	④		⑤

- ① JH 's power module
- ② Circuit configuration (2 separate diodes,parallel pin-out)
- ③ Fast Rectifier Diodes
- ④ Maximum average forward current (2×100A)
- ⑤ Voltage rating(120=1200V)

FIG.1-TYPRCAL FORWARD CURRENT DERATING CURVE

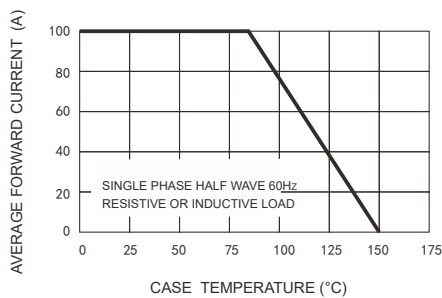


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

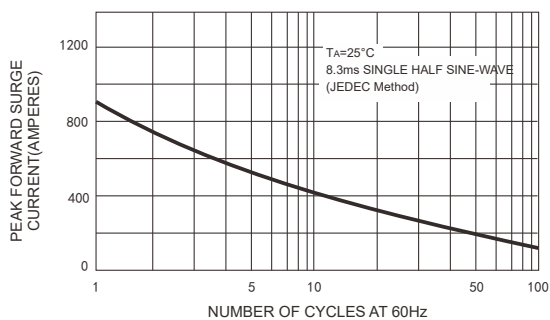


FIG4-TYPICAL FORWARD CHARACTERISTICS

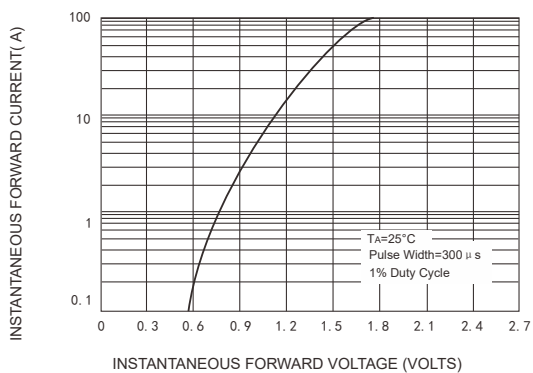
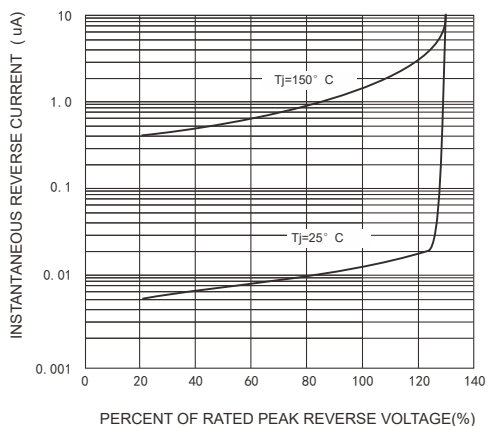
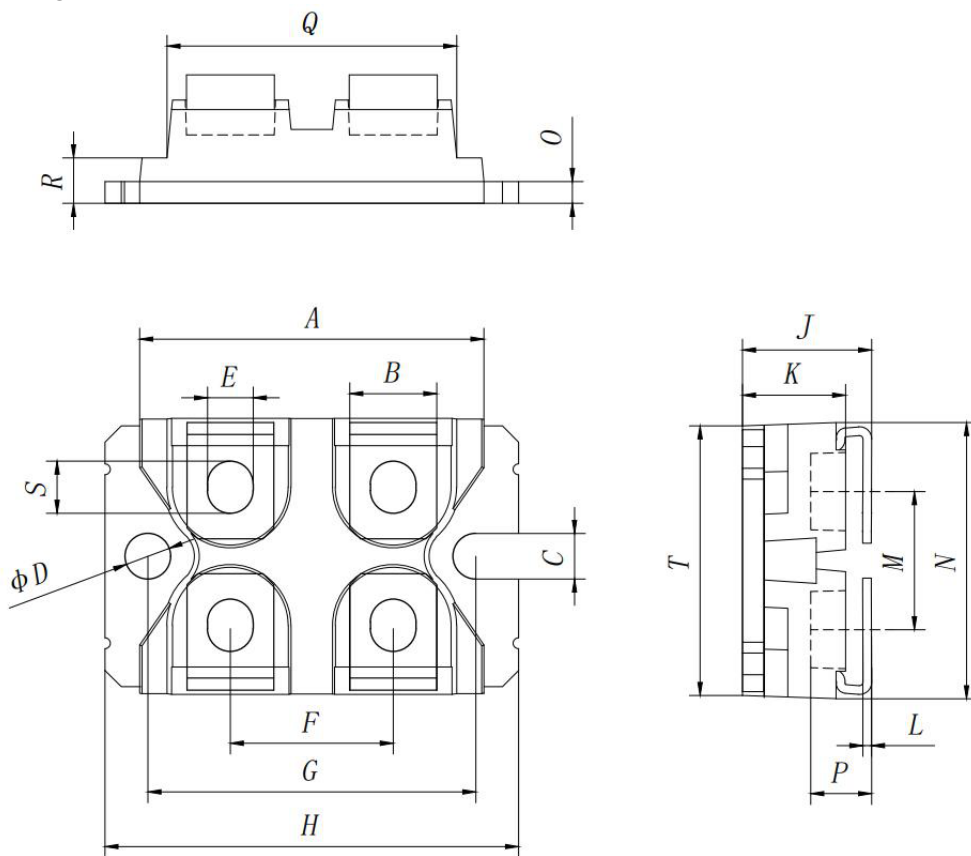


FIG.5-TYPICAL REVERSE CHARACTERISTICS



SOT-227package



SYMBOLS	DIMENSION IN MM		
	MIN	NOM	MAX
<i>A</i>	31.20	31.70	32.20
<i>B</i>	7.50	8.00	8.50
<i>C</i>	3.80	4.20	4.60
<i>D</i>	3.80	4.20	4.60
<i>E</i>	3.80	4.20	4.60
<i>F</i>	14.50	15.00	15.50
<i>G</i>	29.80	30.20	30.60
<i>H</i>	37.70	38.10	38.50
<i>J</i>	11.50	11.90	12.30
<i>K</i>	8.90	9.50	10.00
<i>L</i>	0.75	0.80	0.85
<i>M</i>	12.40	12.70	13.00
<i>N</i>	25.00	25.40	25.80
<i>O</i>	1.70	2.00	2.30
<i>P</i>	4.95	5.60	6.10
<i>Q</i>	26.40	26.70	27.00
<i>R</i>	3.90	4.18	4.45
<i>S</i>	4.20	4.80	5.40
<i>T</i>	23.80	24.80	25.80

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