

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

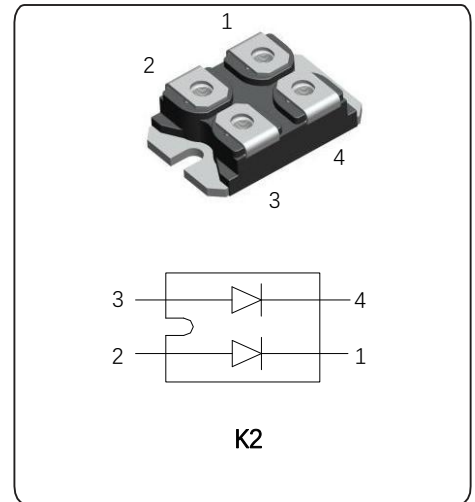
SOT-227

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}		400	V
Maximum Continuous forward current, per pkg per diode	I_F	$T_c=110^{\circ}\text{C}$	40 20	A
Single pulse forward current, per diode	I_{FSM}	$T_j=25^{\circ}\text{C}, t=8.3\text{ms}, \text{half Sine Wave}$	200	A
RMS isolation voltage	V_{iso}	AC, $t=1\text{min}$	2500	V
Maximum junction temperature	T_j		150	$^{\circ}\text{C}$
Maximum reverse recovery time	T_{rr}	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$	45	nS
Storage temperture	T_{stg}		-40 ~ 150	$^{\circ}\text{C}$
Power Dissipation	P_D		96	W

ELECTRICAL CHARACTERISTICS

Parameters	Symbol	Test conditions	Min	Typ	Max	Units
Cathode to anode break down voltage	V _{BR}	I _R =100μA	400	-	-	V
Forward voltage	V _F	I _F =20A, T _J =25°C	-	-	1.40	
		I _F =20A, T _J =125°C	-	-	1.30	
Reverse leakage current	I _R	V _R =V _R rated T _J =25°C	-	-	5	uA
		V _R =V _R rated T _J =150°C	-	-	0.5	mA

THERMAL MECHANICAL SPECIFICATIONS

Parameters	Symbol	Test conditions	Min	Typ	Max	Units
Junction to case, single leg conducting	R _{thjc}		-	-	1.30	°C/W
Junction to case, both leg conducting			-	-	0.65	
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	U	40	-	40
	①	②	③	④		⑤

- ① JH 's power module
- ② Circuit Configuration (2 separate diodes, parallel pin-out)
- ③ Ultrafast Rectifier Diodes
- ④ Maximum Average Forward Current (2×20A)
- ⑤ Voltage Rating(40=400V)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE (Per diode)

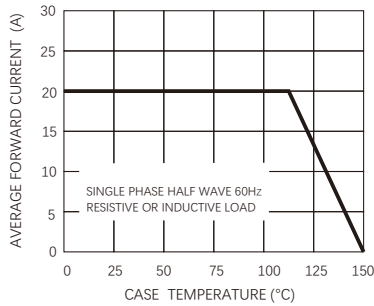


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT (Per diode)

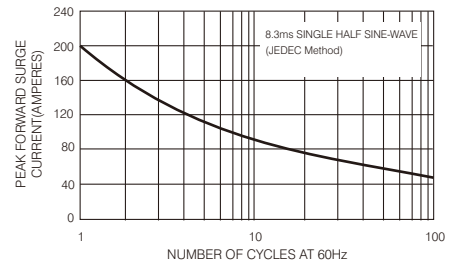


FIG4-TYPICAL FORWARD CHARACTERISTICS (Per diode)

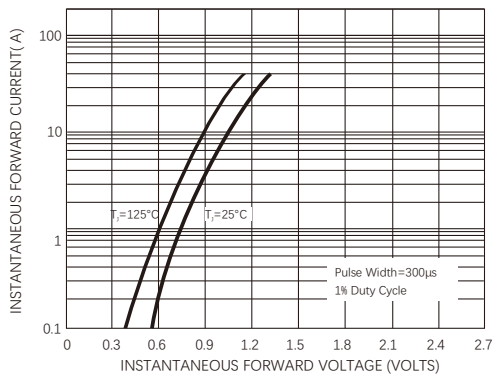
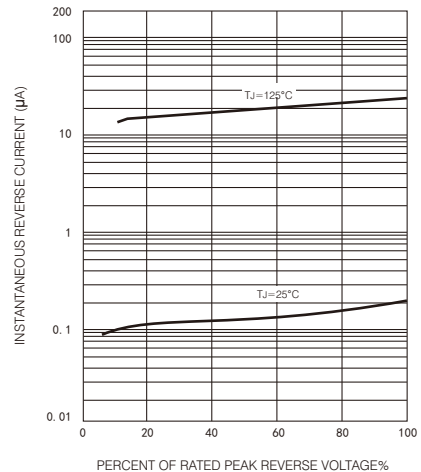
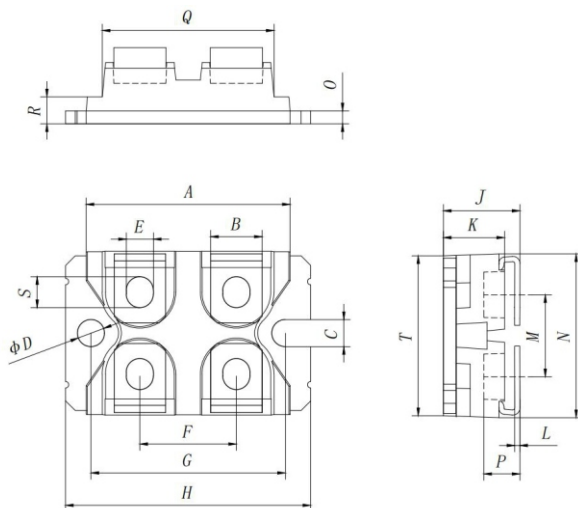


FIG.5-TYPICAL REVERSE CHARACTERISTICS (Per diode)





SYMBOLS	DIMENSION 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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