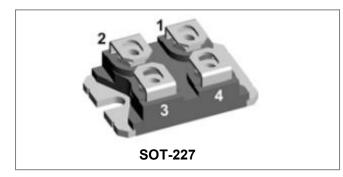


## SK2U240-200

Technical Data Data Sheet N1626, Rev.B



# SK2U240-200 Ultrafast Recovery Modules

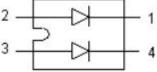


### Features

- International standard package miniBLOC (ISOTOP compatible)
- Isolation voltage 2500 V~
- 2 independent FRED in 1 package
- Planar passivated chips
- Very short recovery time
- Extremely low switching losses
- Low IRM-values
- Soft recovery behaviour
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



**Circuit Diagram** 



### **Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Cathode to anode voltage	V <sub>R</sub>	-	200	V
Continuous forward current per diode	I <sub>F(1)</sub>	50% duty cycle @T <sub>C</sub> = 70°C, rectangular wave form	123	А
Single pulse forward current per diode	I <sub>FSM</sub>	8.3 ms, half Sine pulse, T <sub>c</sub> =25°C	1300	A
RMS isolation voltage	V <sub>iSol</sub>	50/60 Hz, RMS	2500	V~
		l <sub>iSol</sub> ≤ 1 mA		

Note: (1) IF rating includes reverse blocking losses at TJM, VR = 0.8 VRRM, duty cycle d = 0.5 Data according to IEC 60747

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### Technical Data Data Sheet N1626, Rev.B

# SK2U240-200

RoHS 🔗

## **Electrical Characteristics:**

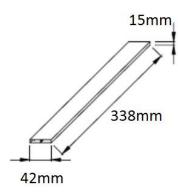
Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop (per leg) *	V <sub>F1</sub>	@ 120A, Pulse, T <sub>J</sub> = 25 °C	1.04	1.10	V
	V <sub>F2</sub>	@ 120A, Pulse, T <sub>J</sub> = 150 °C	0.89	0.95	V
Reverse Current (per leg) *	I <sub>R1</sub>	$@V_R = rated V_{R,} T_J = 25 \ ^{\circ}C$	0.06	500	uA
	I <sub>R2</sub>	@V <sub>R</sub> = rated V <sub>R</sub> , T <sub>J</sub> = 125 °C	-	20	mA
Reverse recovery time	Trr	IF=500mA, IR=1A, Irm=250mA, TJ = 25 °C	70	90	nS
Reverse recovery time	Trr	IF=1.0A, dIF/dt=400A/µS, VR=30V, TJ = 25 °C	35	50	nS
Peak recovery current	I <sub>RM</sub>	IF=100A, dIF/dt=200A/μS, VR=100V, TJ = 100 °C	12	15	А

\* Pulse width < 300 µs, duty cycle < 2%

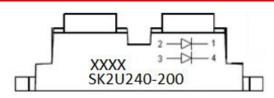
## **Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-40 to +150	°C
Storage Temperature	T <sub>stg</sub>	-	-40 to +150	°C
Maximum Thermal Resistance Junction to Case	R <sub>θJC</sub>	DC operation	0.5	K/W
Mounting torque		-	1.5/13	Nm/
Terminal connection torque(M4)	- M <sub>D</sub>		1.5/13	lb.in.
Typical Approximate Weight	wt	-	30	g
Case Style	SOT-227			

## **Tube Specification**



## Marking Diagram



#### Where XXXX is YYWW

S	= SMC's Power Module
K	= SOT-227 Package
2	= Circuit Configuration
U	= Ultrafast Rectifier
240	= Forward Current (240A)
200	= Reverse Voltage (200V)
YY	= Year
WW	= Week

Remark: marking is as above from data code 2036.

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### Technical Data Data Sheet N1626, Rev.B

# SK2U240-200

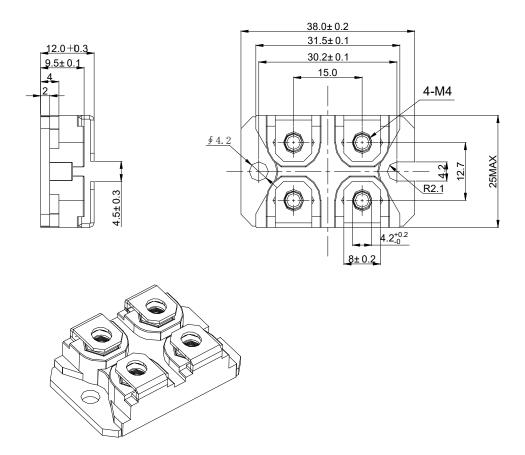
RoHS 🔗

## **Ordering Information**

Device	Package	Shipping
SK2U240-200	SOT-227 (Pb-Free)	36pcs / box

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

## Mechanical Dimensions SOT-227(Millimeters)





### Technical Data Data Sheet N1626, Rev.B

## SK2U240-200



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