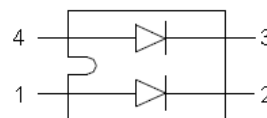


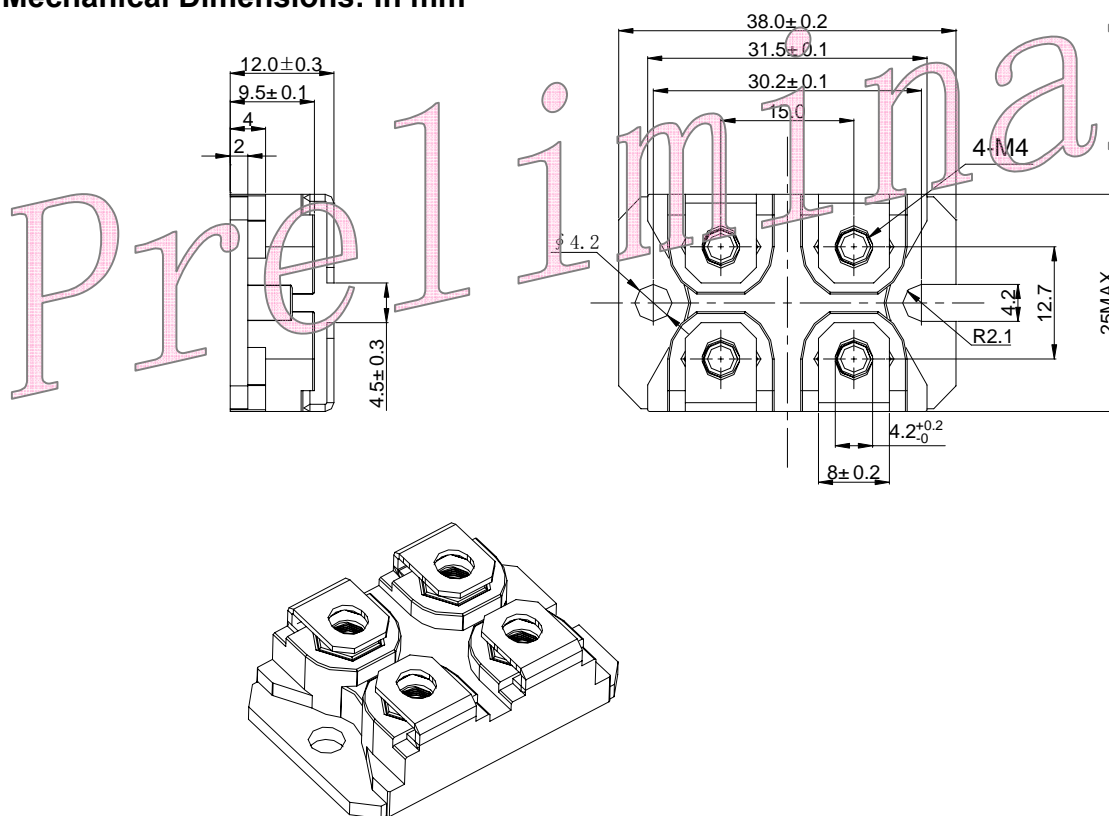
## SK2U240-200 Ultrafast Recovery Modules

### 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



### Mechanical Dimensions: In mm

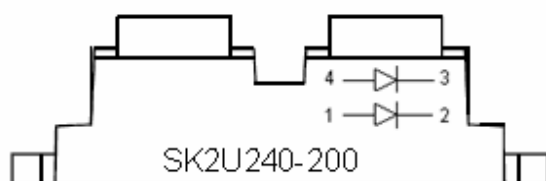


**SOT-227**

Technical Data  
Data Sheet N1626, Rev. -

**Green Products**

**Marking Diagram:**



S = SMC's power module  
K = SOT-227 package  
2 = Circuit configuration  
U = Ultrafast rectifier  
240 = Forward Current (240A)  
200 = Reverse Voltage (200V)

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
SK2U240-200	SOT-227 (Pb-Free)	10pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Technical Data**  
**Data Sheet N1626, Rev. -**
**Green Products**
**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Cathode to anode voltage	$V_R$	-	200	V
Continuous forward current per diode	$I_{F(1)}$	50% duty cycle @ $T_C = 70^\circ\text{C}$ , rectangular wave form	123	A
Single pulse forward current per diode	$I_{FSM}$	8.3 ms, half Sine pulse, $T_C = 25^\circ\text{C}$	1300	A
RMS isolation voltage	$V_{iSol}$	50/60 Hz, RMS $I_{iSol} \leq 1 \text{ mA}$	2500	V~
Total power dissipation	$P_{tot}$	$T_C = 25^\circ\text{C}$	250	W

 Note: (1)  $I_F$  rating includes reverse blocking losses at  $T_{JM}$ ,  $V_R = 0.8 V_{RRM}$ , duty cycle  $d = 0.5$  Data according to IEC 60747

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop (per leg) *	$V_{F1}$	@ 120A, Pulse, $T_J = 25^\circ\text{C}$	1.04	1.10	V
	$V_{F2}$	@ 120A, Pulse, $T_J = 150^\circ\text{C}$	0.89	0.95	V
Reverse Current (per leg) *	$I_{R1}$	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	0.06	500	$\mu\text{A}$
	$I_{R2}$	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$	-	20	mA
Reverse recovery time	$T_{rr}$	$I_F = 500\text{mA}$ , $I_R = 1\text{A}$ , $I_{rm} = 250\text{mA}$ , $T_J = 25^\circ\text{C}$	70	90	nS
Reverse recovery time	$T_{rr}$	$I_F = 1.0\text{A}$ , $dI_F/dt = 400\text{A}/\mu\text{S}$ , $V_R = 30\text{V}$ , $T_J = 25^\circ\text{C}$	35	50	nS
Peak recovery current	$I_{RM}$	$I_F = 100\text{A}$ , $dI_F/dt = 200\text{A}/\mu\text{S}$ , $V_R = 100\text{V}$ , $T_J = 100^\circ\text{C}$	12	15	A

 \* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle < 2%

**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	$T_J$	-	-40 to +150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-	-40 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	0.5	K/W
Mounting torque	$M_D$	-	1.5/13	Nm/ lb.in.
Terminal connection torque(M4)			1.5/13	
Typical Approximate Weight	wt	-	30	g
Case Style	SOT-227			

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Preliminary