

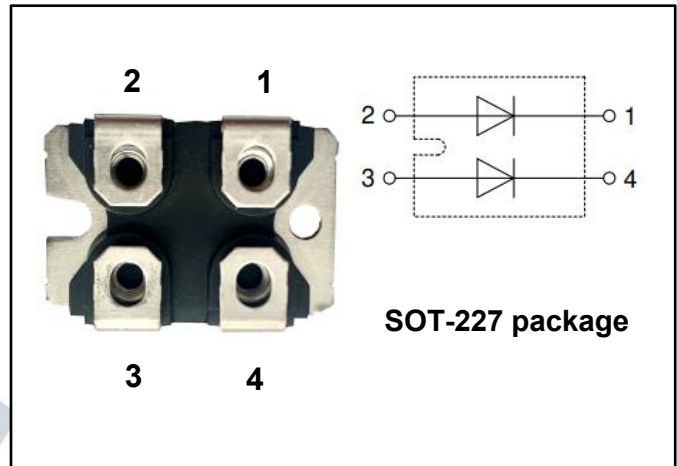
Fast Recovery Epitaxial Diode

DESCRIPTION

- Planar passivated chips
- Low leakage current
- Very short recovery time
- Improved thermal behaviour
- Very low I_{rm} -values
- Very soft recovery behaviour

APPLICATIONS

- Switch Mode Power Supply (SMPS)
- Uninterruptible Power Supply (UPS)



ABSOLUTE MAXIMUM RATINGS

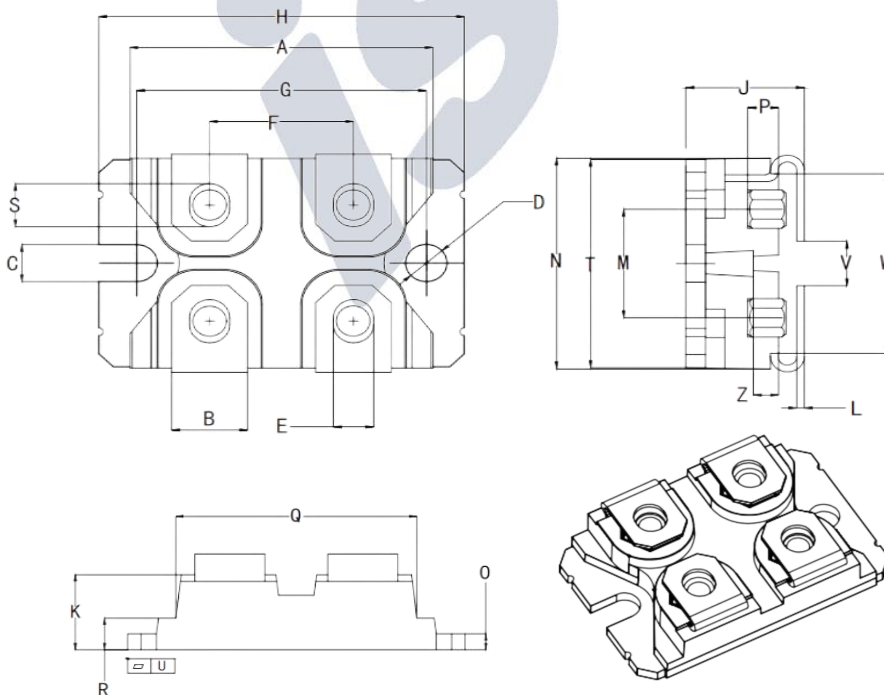
SYMBOL	PARAMETER	VALUE	UNIT
V_{RSM}	Max. non-repetitive reverse blocking voltage, $T_{VJ}=25^{\circ}\text{C}$	1200	V
V_{RRM}	Max. repetitive reverse blocking voltage, $T_{VJ}=25^{\circ}\text{C}$	1200	V
I_{FAV}	Forward voltage drop, $T_C=45^{\circ}\text{C}$, $T_{VJ}=150^{\circ}\text{C}$ rectangular 0.5	91	A
I_{FSM}	Max. forward surge current, $t = 10 \text{ ms}$; (50 Hz), sine; $T_{VJ}=45^{\circ}\text{C}$	900	A
P_{tot}	Total power dissipation, $T_C=25^{\circ}\text{C}$	250	W
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.5	$^{\circ}\text{C}/\text{W}$
$R_{th\ c-h}$	Thermal resistance case to heatsink	Typ 0.1	$^{\circ}\text{C}/\text{W}$
T_J	Junction Temperature	-40~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-40~150	$^{\circ}\text{C}$
V_{isol}	Insulation test voltage, $t = 1 \text{ min}$	2500	V

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ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT	
V_F	Diode Forward Voltage	$I_F=100A; T_C=25^\circ C$	--	--	1.87	V	
		$I_F=200A; T_C=25^\circ C$	--	--	2.13		
		$I_F=100A; T_C=150^\circ C$	--	--	1.61		
		$I_F=200A; T_C=150^\circ C$	--	--	1.92		
I_R	Reverse current	$V_R=1200V; T_J=25^\circ C$	--	--	3	mA	
		$V_R=960V; T_J=125^\circ C$	--	--	15		
t_{rr}	Reverse Recovery Time	$I_F=100A;$ $V_R=600V,$ $di_F/dt=600A/\mu s$	$T_C=25^\circ C$	--	150	--	ns
			$T_C=150^\circ C$	--	255	--	

PACKAGE OUTLINE (UNIT: MM):



DIM	Millimeter	
	min	max
A	31.40	31.60
B	7.70	8.10
C	4.20	4.40
D	4.20	4.40
E	4.10	4.40
F	14.90	15.10
G	30.10	30.30
H	38.00	38.40
J	12.00	12.60
K	9.35	9.65
L	0.74	0.84
M	12.30	12.70
N	24.40	25.00
O	1.90	2.10
P	2.92	3.32
Q	26.60	27.00
R	3.80	4.20
S	4.95	5.45
T	23.70	24.30
U	0	0.10
V	3.50	5.50
W	20.15	20.45
Z	2.50	2.70



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