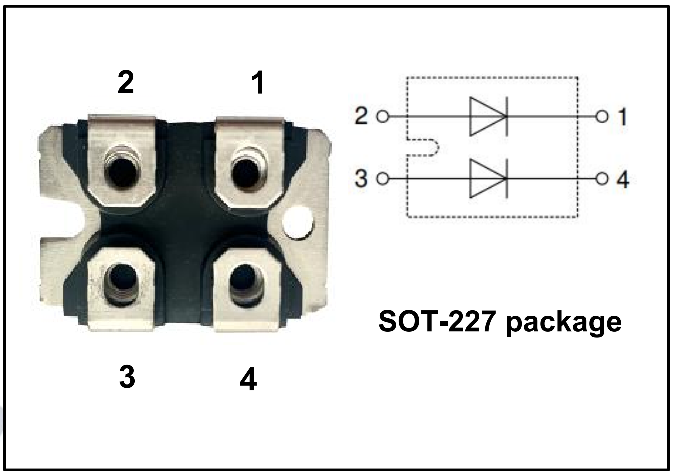
ISUM6019

eq DSEI2X101-12A

Fast Recovery Epitaxial Diode

DESCRIPTION

- Planar passivated chips
- Low leakage current
- Very short recovery time
- Improved thermal behaviour
- Very low Irm-values
- Very soft recovery behaviour



APPLICATIONS

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

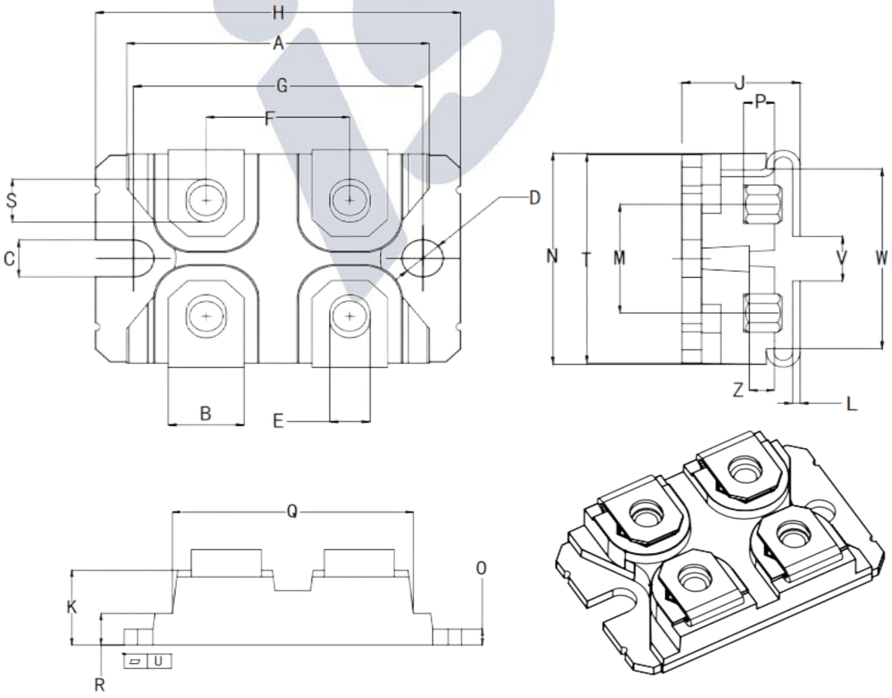
ABSOLUTE MAXIMUM RATINGS

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

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V_F	Diode Forward Voltage	I_F=100A; T_C=25℃	--	--	1.87	V
		I_F=200A; T_C=25℃	--	--	2.13	
		I_F=100A; T_C=150℃	--	--	1.61	
		I_F=200A; T_C=150℃	--	--	1.92	
I_R	Reverse current	V_R=1200V;T_J=25℃	--	--	3	mA
		V_R=960V;T_J=125℃	--	--	15	
t_{rr}	Reverse Recovery Time	I_F =100A; V_R = 600 V, di_F/dt = 600A/us T_C=25℃	--	150	--	ns
		T_C=150℃	--	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
0	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

Product Disclaimer