ISU6017
eq DSEC120-12AK
Ultrafast Recovery Diode

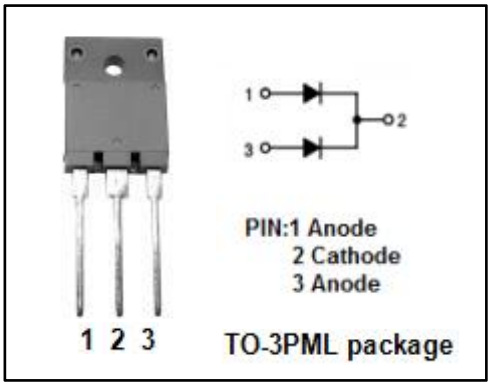
FEATURES

·Super fast switch for high efficiency

·Low reverse leakage

·High forward surge current capability

·Rohs Compliant



APPLICATIONS

·SMPS,Power Switching Circuits

·Output Rectifiers

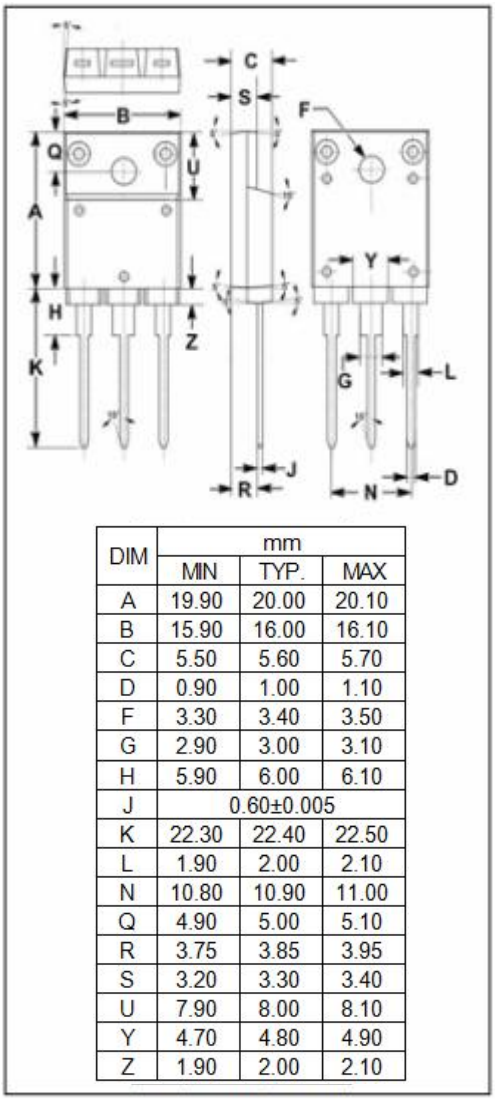
·Freewheeling Diodes

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	1200	V
$I_{F(AV)}$	Average Rectified Forward Current @TC=115℃	60	A
I_{FSM}	Forward Peak Surge Current	500	A
T_J	Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.45	℃/W



DIM	mm		
	MIN	TYP.	MAX
A	19.90	20.00	20.10
B	15.90	16.00	16.10
C	5.50	5.60	5.70
D	0.90	1.00	1.10
F	3.30	3.40	3.50
G	2.90	3.00	3.10
H	5.90	6.00	6.10
J	0.60±0.005		
K	22.30	22.40	22.50
L	1.90	2.00	2.10
N	10.80	10.90	11.00
Q	4.90	5.00	5.10
R	3.75	3.85	3.95
S	3.20	3.30	3.40
U	7.90	8.00	8.10
Y	4.70	4.80	4.90
Z	1.90	2.00	2.10

ELECTRICAL CHARACTERISTICS(T_a=25℃) (Pulse Test: Pulse Width=300 μs,Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 60A ;Tj=25℃ I_F= 60A ;Tj=150℃	2.66 1.81	V
V_F	Maximum Instantaneous Forward Voltage	I_F= 120A ;Tj=25℃ I_F= 120A ;Tj=150℃	3.18 2.40	V
I_R	Maximum Instantaneous Reverse Current	V_R= $V_{RWM;}$Tj=25℃	650	uA
I_R	Maximum Instantaneous Reverse Current	V_R= $V_{RWM;}$Tj=150℃	2.5	mA
t_{rr}	Maximum Reverse Recovery Time	I_F= 60A，V_R= 600V di_F/dt=200A/us，Tj=25℃	80	ns
t_{rr}	Maximum Reverse Recovery Time	I_F= 60A，V_R= 600V di_F/dt=200A/us，Tj=100℃	220	ns

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