

FEATURES

- Super fast switch for high efficiency
- Low reverse leakage
- High forward surge current capability
- Rohs Compliant

APPLICATIONS

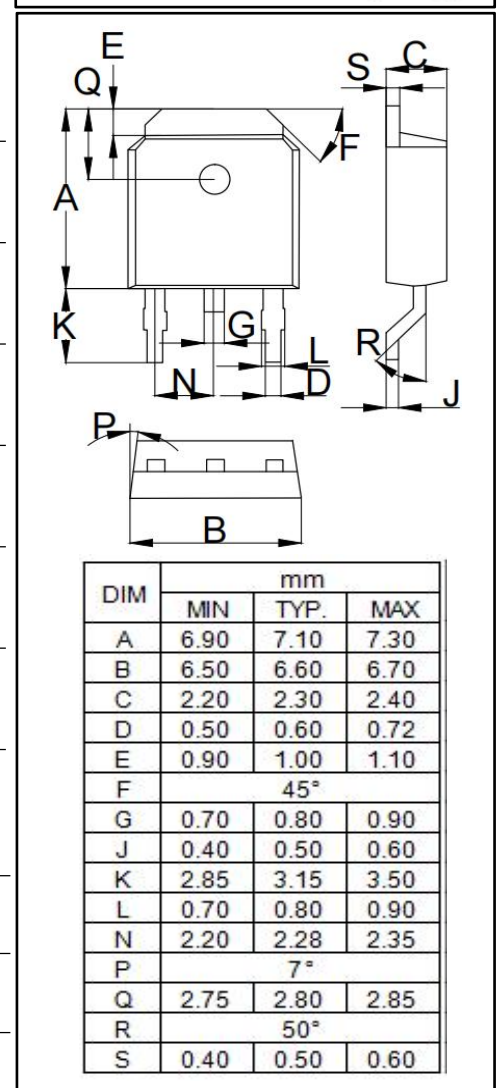
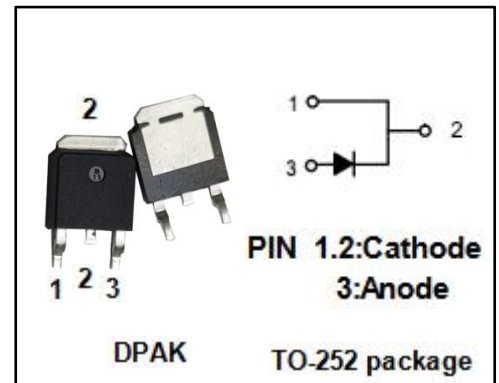
- SMPS, Power Switching Circuits
- Output Rectifiers
- Freewheeling Diodes

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	200	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_C=115^{\circ}\text{C}$	10	A
I_{FSM}	Forward Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
T_J	Junction Temperature	-65~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	3.0	$^{\circ}\text{C/W}$





ISU6012

eq FFD10UP20S

Ultrafast Recovery Diode

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$) (Pulse Test: Pulse Width=300 μs , Duty Cycle $\leq 2\%$)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=10\text{A}; T_j=25^{\circ}\text{C}$ $I_F=10\text{A}; T_j=100^{\circ}\text{C}$	1.15 1.10	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=V_{RWM}; T_j=100^{\circ}\text{C}$	100 500	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=10\text{A}, di_F/dt=200\text{A}/\mu\text{s}, V_R=130\text{V}$	25	ns

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