

Ultrafast Recovery Diode

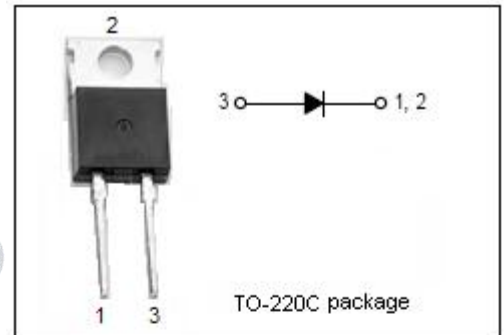
IDP20E65D2

FEATURES

- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 175°C Operating Junction Temperature
- High Temperature Glass Passivated Junction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

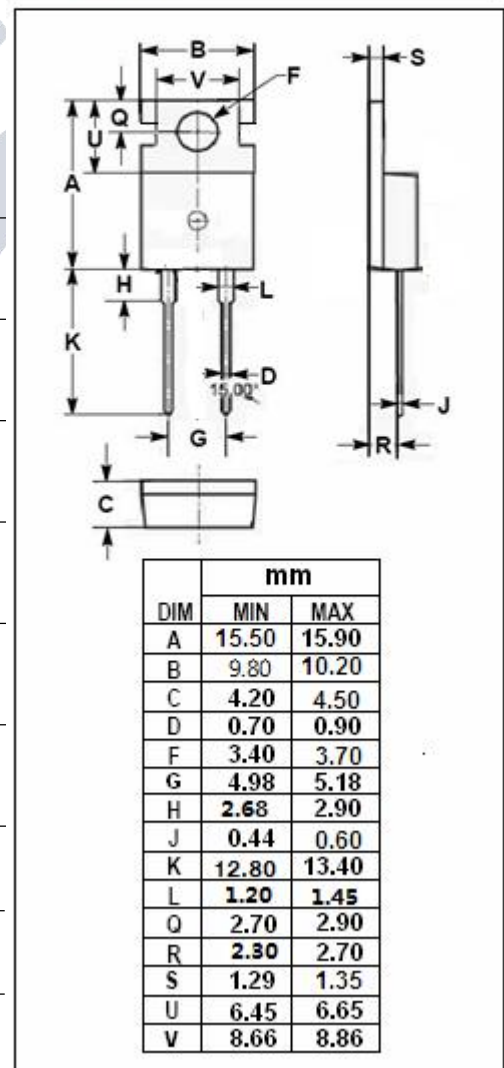
APPLICATIONS

- Designed for use in switching power supplies and other power Switching applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	Peak Repetitive Reverse Voltage	650	V
$I_{F(AV)}$	Average Rectified Forward Current	40	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, $t_p=8.3\text{ms}$)	120	A
T_J	Junction Temperature	-55~175	°C
T_{stg}	Storage Temperature Range	-55~175	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.25	°C/W

Ultrafast Recovery Diode**IDP20E65D2****ELECTRICAL CHARACTERISTICS(T_a=25°C) (Pulse Test: Pulse Width=300 μs,Duty Cycle≤2%)**

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 20A	2.2	V
I _R	Maximum Instantaneous Reverse Current	V _{RRM} =600V	40	μ A
t _{rr}	Maximum Reverse Recovery Time	I _F = 1A;di/dt=200A/us;V _R =30V	32	ns

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