

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

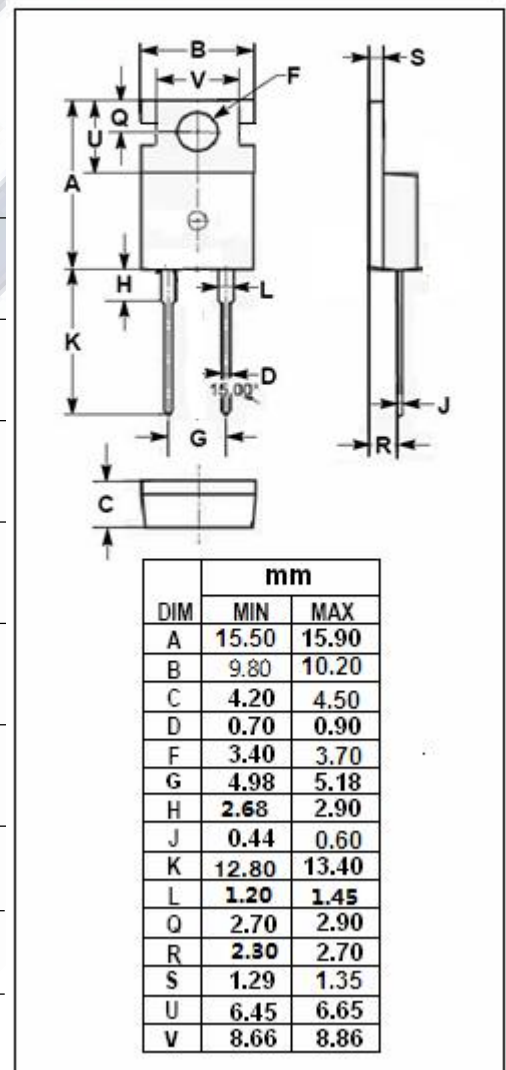
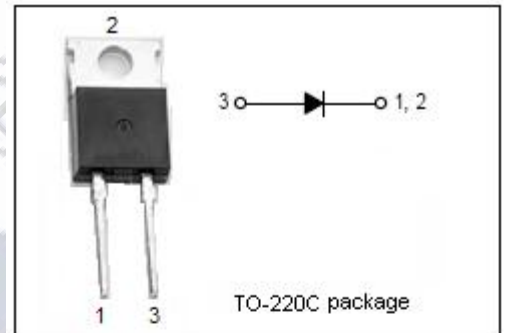
- Designed for use in switching power supplies and other power Switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25°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 =8.3ms)	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



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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	$I_F = 20\text{A}$	2.2	V
I_R	Maximum Instantaneous Reverse Current	$V_{RRM}=600\text{V}$	40	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F = 1\text{A}; di/dt=200\text{A}/\mu\text{s}; V_R=30\text{V}$	32	ns