

# UGRB20D

## Ultra fast Plastic Power Rectifiers

VOLTAGE: 200V

CURRENT: 20.0A

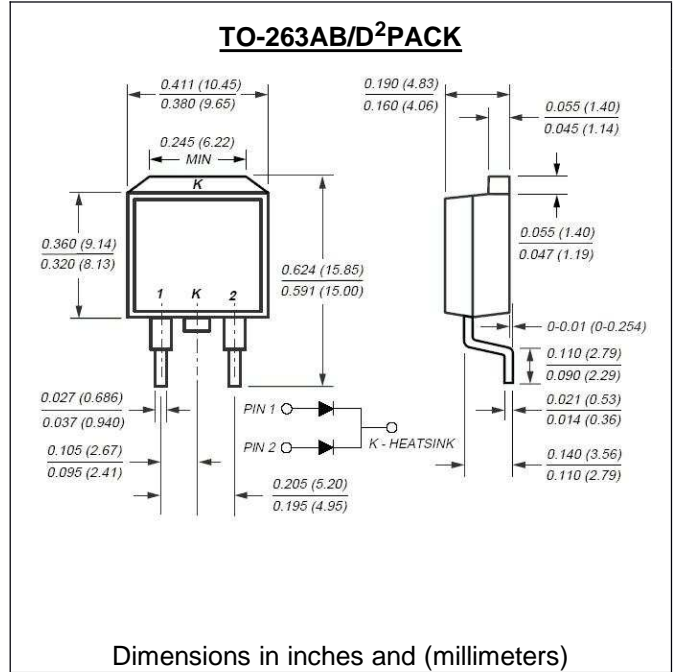


### FEATURE

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultra fast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- High voltage and high reliability
- High speed switching
- Low forward voltage

### MECHANICAL DATA

Case: JEDEC D2PAK molded plastic body over passivated chip  
 Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes cathode end  
 Mounting Position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

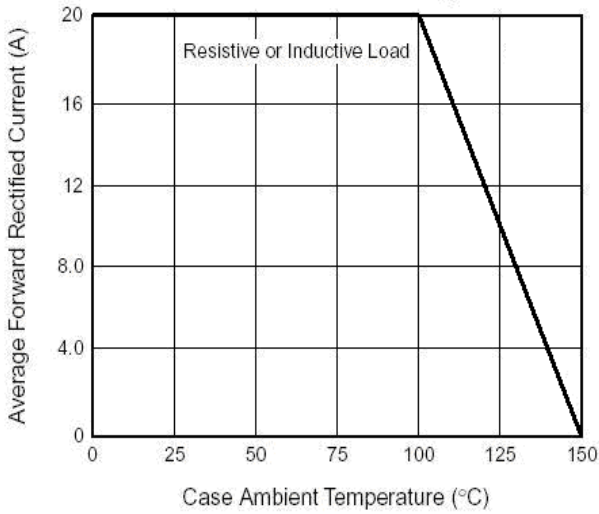
	SYMBOL	UGRB20D	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	200	V
Maximum RMS Voltage	V <sub>rms</sub>	140	V
Maximum DC blocking Voltage	V <sub>dc</sub>	200	V
Maximum Average Forward Rectified at T <sub>c</sub> =100°C	I <sub>f(av)</sub>	20.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	140	A
Maximum Forward Voltage at Forward Current and 25°C at 20A	V <sub>f</sub>	1.15	V
Maximum DC Reverse Current T <sub>a</sub> =25°C at rated DC blocking voltage T <sub>a</sub> =125°C	I <sub>r</sub>	5.0 100.0	μA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	15	nS
Typical thermal resistance junction to case	R <sub>th(jc)</sub>	3.0	°C/W
Storage and Operating Temperature Range	T <sub>stg</sub> , T <sub>j</sub>	-55 to +150	°C

#### Note:

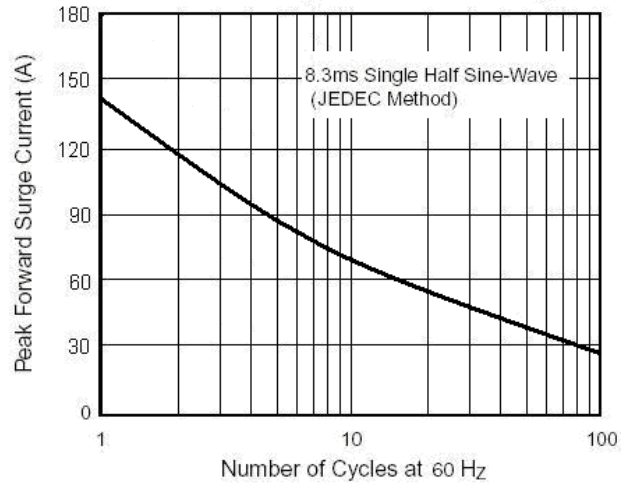
1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A

## RATINGS AND CHARACTERISTIC CURVES UGRB20D

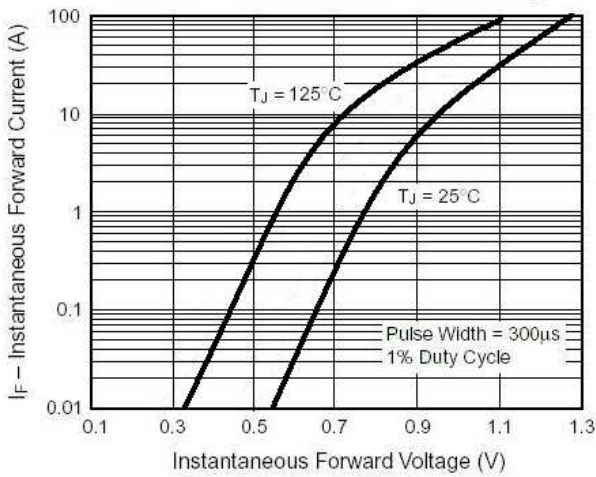
**Forward Current Derating Curve**



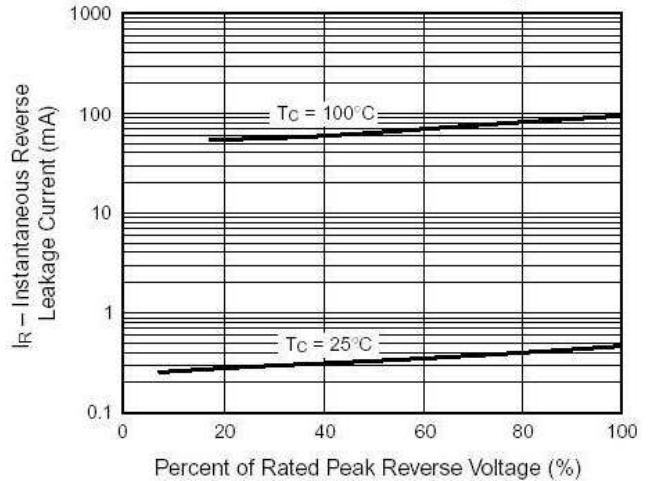
**Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



**Typical Instantaneous Forward Characteristics Per Leg**



**Typical Reverse Leakage Characteristics Per Leg**



**Typical Junction Capacitance Per Leg**

