

# BY203-20S

**SINTERED GLASS JUNCTION  
FAST SWITCHING PLASTIC RECTIFIER**  
VOLTAGE: 2000V                      CURRENT: 0.25A

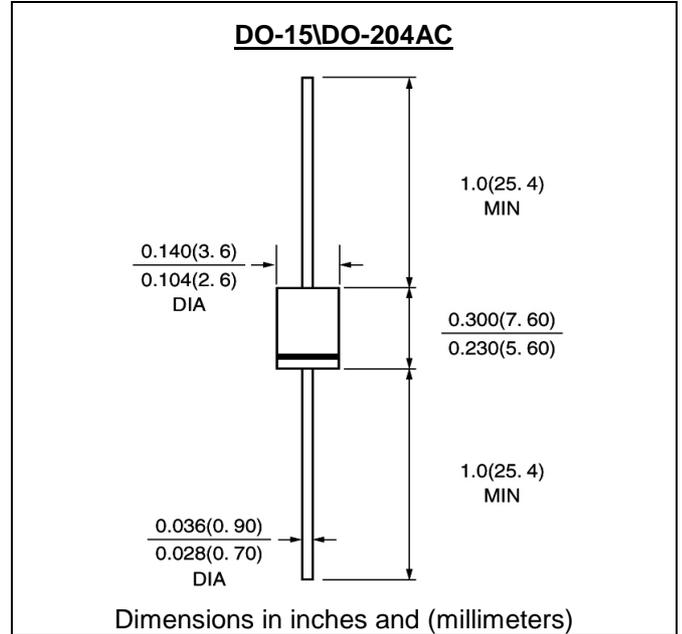


## FEATURE

High temperature metallurgically bonded construction  
Sintered glass cavity free junction  
Capability of meeting environmental standard of MIL-S-19500  
High temperature soldering guaranteed  
350°C/10sec/0.375"lead length at 5 lbs tension  
Operate at Ta =55°C with no thermal run away  
Typical Ir<0.5µA

## MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

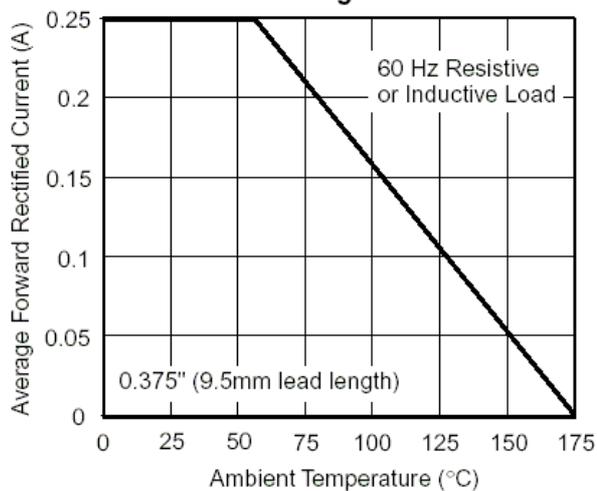
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	BY203-20S	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	2000	V
Maximum RMS Voltage	V <sub>rms</sub>	1400	V
Maximum DC blocking Voltage	V <sub>dc</sub>	2000	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C	I <sub>f(av)</sub>	0.25	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	10.0	A
Maximum Forward Voltage at rated Forward Rectified Current and 25°C	V <sub>f</sub>	6.0	V
Maximum full load reverse current full cycle Average at 55°C Ambient	I <sub>r(av)</sub>	100	µA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I <sub>r</sub>	10.0 300.0	µA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	75	nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	5.0	pF
Typical Thermal Resistance (Note 3)	R <sub>th(ja)</sub>	65.0	°C /W
Storage and Operating Junction Temperature	T <sub>stg, Tj</sub>	-65 to +175	°C

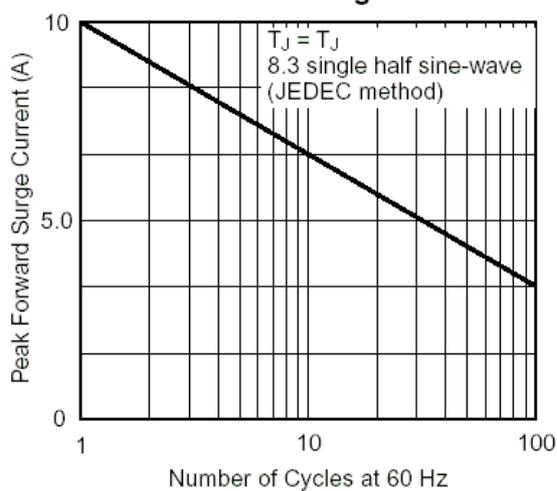
Note:

1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. B
4. Board Mounted

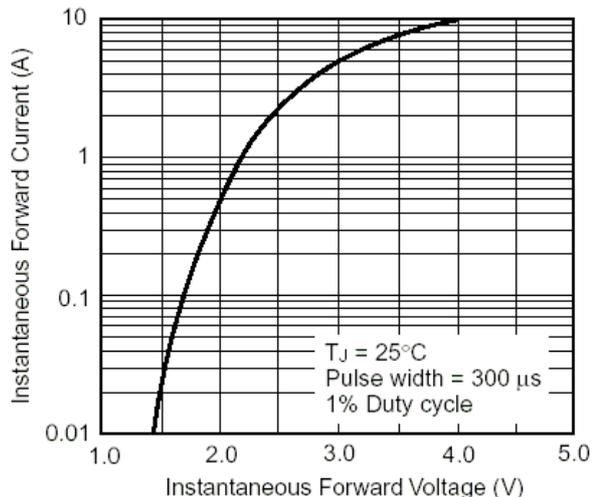
**Fig. 1 – Forward Current Derating Curve**



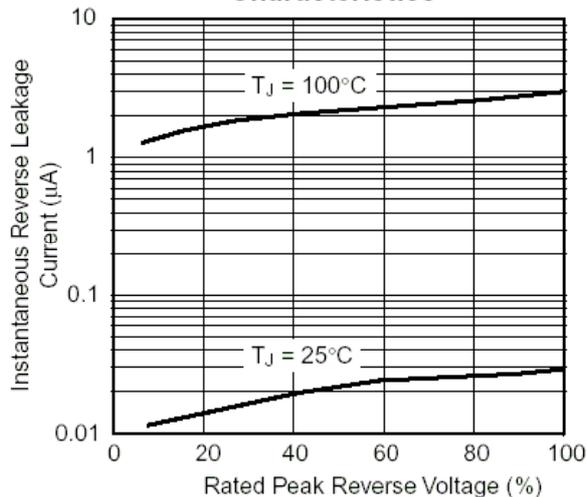
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

