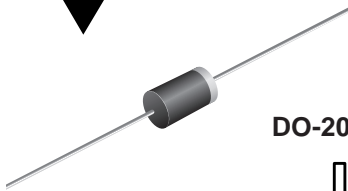


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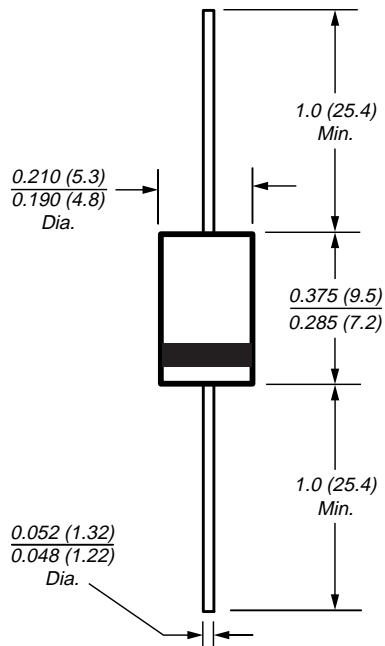
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## Schottky Barrier Rectifier

DO-201AD

Reverse Voltage 20 to 40V  
Forward Current 3.0A



### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection

### Mechanical Data

**Case:** JEDEC DO-201 AD molded plastic body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed:  
250°C/10 seconds 0.375" (9.5mm) lead length,  
5lbs. (2.3kg) tension

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.04 oz., 1.12 g

**Packaging codes/options:**

- 1/Bulk - 1.5K per container, 15K per box
- 4/1.4K per 13" reel, 5.6K per box
- 23/1K per ammo mag., 9K per box

### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbols	1N5820	1N5821	1N5822	Units
* Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	V
* Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	V
* Non-repetitive peak reverse voltage	V <sub>RSM</sub>	24	36	48	V
* Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>L</sub> =95°C	I <sub>F(AV)</sub>	3.0			A
* Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T <sub>L</sub> =75°C	I <sub>FSM</sub>	80			A
Typical thermal resistance <sup>(2)</sup>	R <sub>θJA</sub> R <sub>θJL</sub>	40 10			°C/W
* Storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +125			°C

### Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbols	1N5820	1N5821	1N5822	Units
* Maximum instantaneous forward voltage at 3.0 <sup>(1)</sup>	V <sub>F</sub>	0.475	0.500	0.525	V
* Maximum instantaneous forward voltage at 9.4 <sup>(1)</sup>	V <sub>F</sub>	0.850	0.900	0.950	V
* Maximum average reverse current at rated DC blocking voltage <sup>(1)</sup>	I <sub>R</sub>	2.0 20			mA

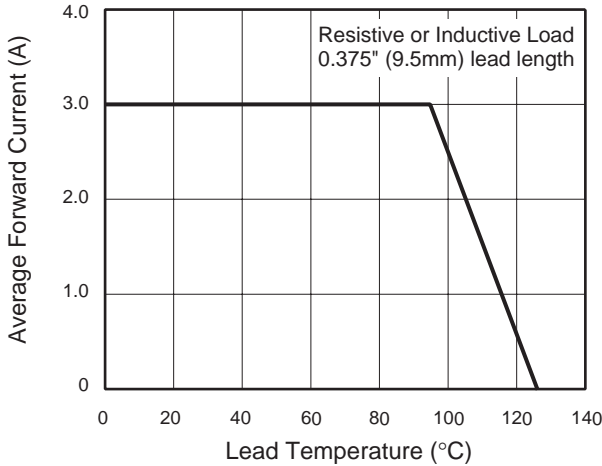
\* JEDEC registered values

**Notes:**

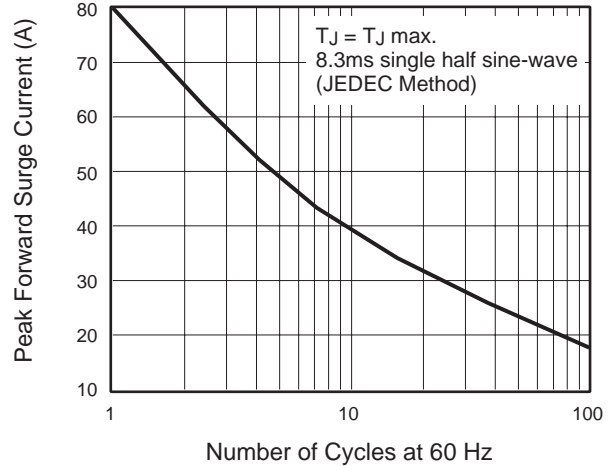
- (1) Pulse test: 300µs pulse width, 1% duty cycle
- (2) Thermal resistance from junction to lead vertical P.C.B. mounted, 0.500" (12.7mm) lead length with 2.5 x 2.5" (63.5 x 63.5mm) copper pad

## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

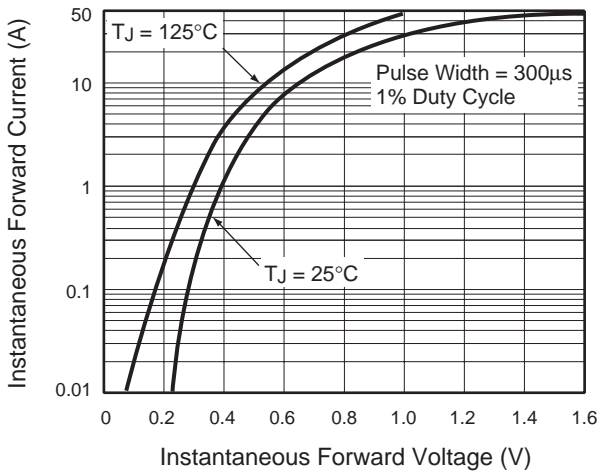
**Fig. 1 - Forward Current Derating Curve**



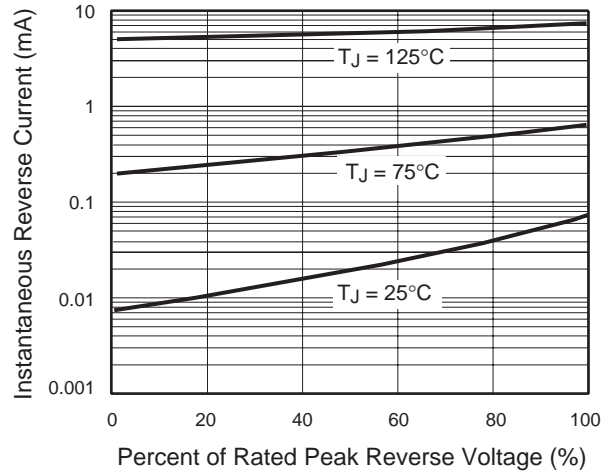
**Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current**



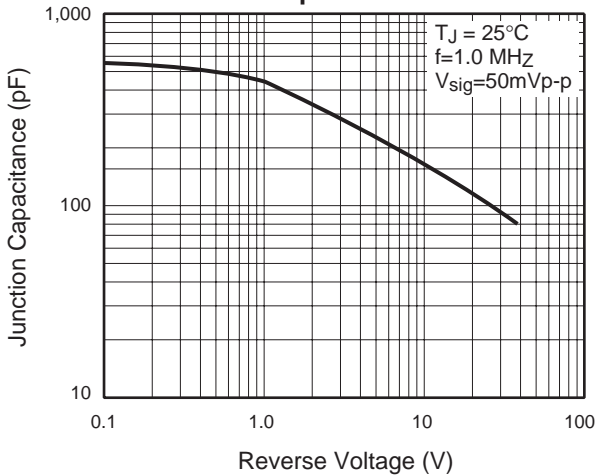
**Fig. 3 - Typical Instantaneous Forward Characteristics**



**Fig. 4 - Typical Reverse Characteristics**



**Fig. 5 - Typical Junction Capacitance**



**Fig. 6 - Typical Transient Thermal Impedance**

