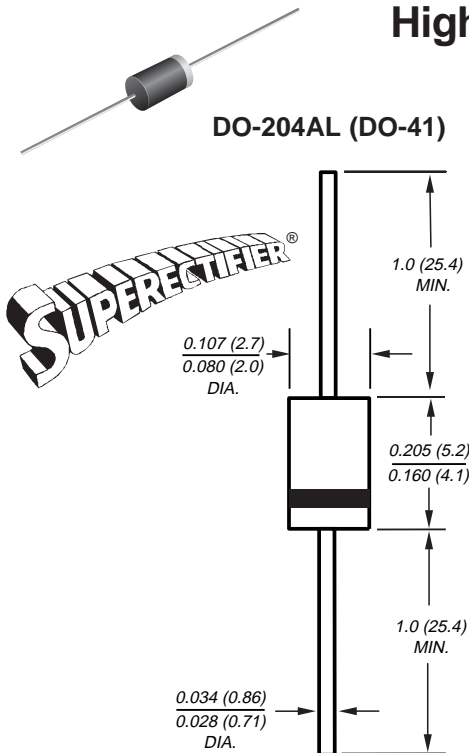




## High Voltage Glass Passivated Junction Rectifiers

Reverse Voltage 2000 to 4000V  
Forward Current 0.25A

DO-204AL (DO-41)



Patented\*

### Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500

### Mechanical Data

**Case:** JEDEC DO-204AL, molded plastic over glass body

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

High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.012 oz., 0.3 g

Dimensions in inches and (millimeters)

\*Glass-plastic encapsulation technique is covered by

Patent No. 3,996,602, and brazed-lead assembly by Patent No. 3,930,306

### Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GP02-20	GP02-25	GP02-30	GP02-35	GP02-40	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	2000	2500	3000	3500	4000	V
Maximum RMS Voltage	V <sub>RMS</sub>	1400	1750	2100	2450	2800	V
Maximum DC blocking voltage	V <sub>DC</sub>	2000	2500	3000	3500	4000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> = 55°C	I <sub>F(AV)</sub>	0.25					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load at T <sub>A</sub> = 55°C (JEDEC Method)	I <sub>FSM</sub>	15					A
Typical thermal resistance <sup>(1)</sup>	R <sub>θJA</sub>	130					°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175					°C

### Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

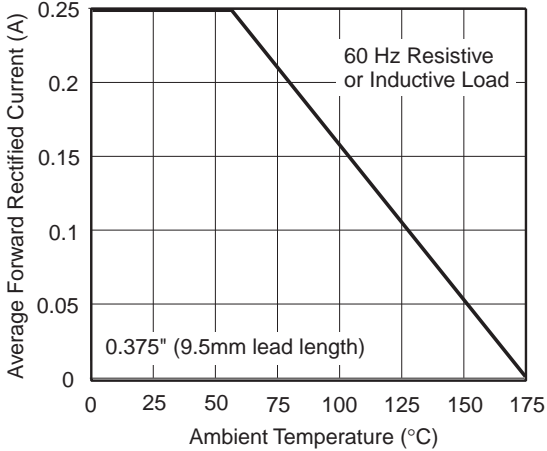
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	3.0	V
Maximum DC reverse current T <sub>A</sub> = 25°C at rated DC blocking voltage T <sub>A</sub> = 100°C	I <sub>R</sub>	5.0 50	μA
Typical reverse recovery time at I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1.0A, I <sub>rr</sub> = 0.25A	t <sub>rr</sub>	2.0	μs
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	3.0	pF

**Note:** (1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

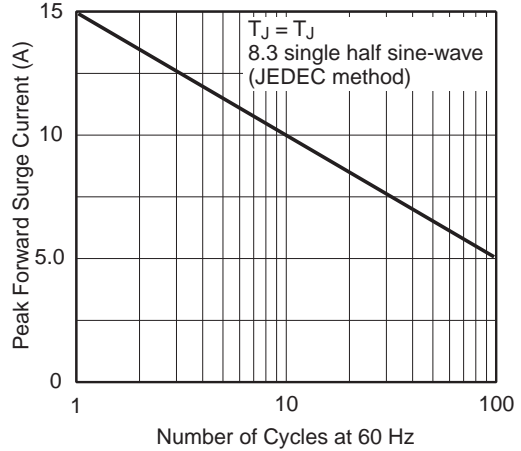
\*JEDEC registered values

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

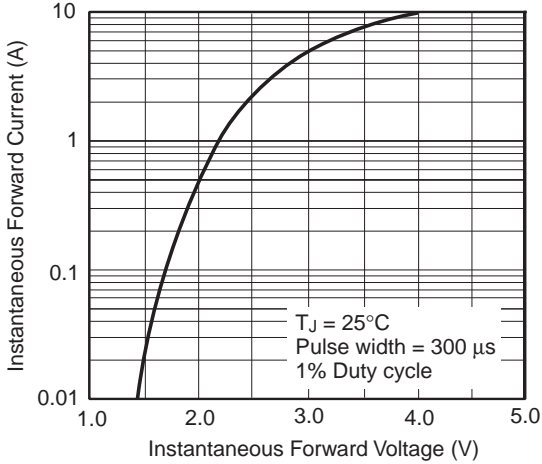
**Fig. 1 – Forward Current Derating Curve**



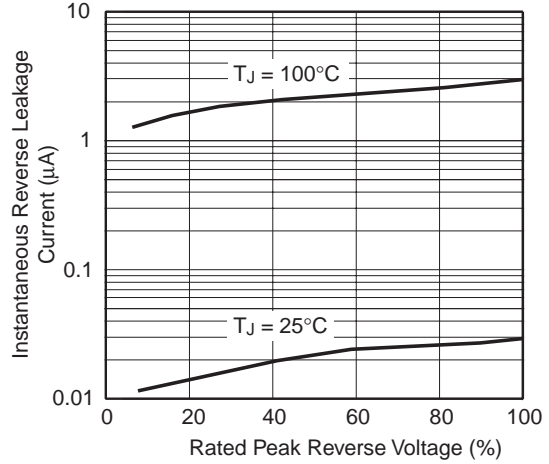
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



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



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

