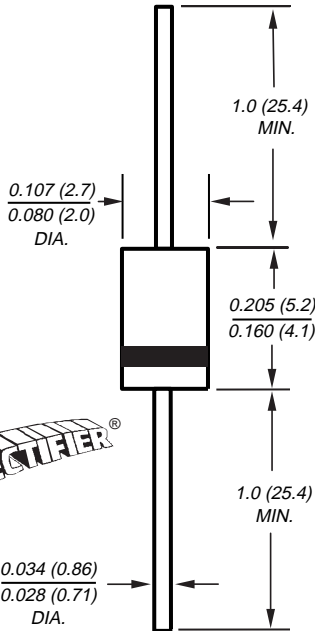


**Glass Passivated Ultrafast Rectifier**

Reverse Voltage 50 to 400V  
Forward Current 1.0A

DO-204AL (DO-41)



Dimensions in inches and (millimeters)

\*Glass Encapsulation technique is covered by Patent No. 3,996,602, brazed-lead assembly to Patent No. 3,930,306

Patented\*

**Features**

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Cavity-free glass passivated junction
- Ultrafast recovery time for high efficiency
- Low forward voltage, high current capability
- Low leakage current
- High surge current capability
- High temperature metallurgically bonded construction
- High temperature soldering guaranteed: 300°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

**Mechanical Data**

**Case:** JEDEC DO-204AL, molded plastic over solid glass body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.012 oz., 0.3 g

**Maximum Ratings & Thermal Characteristics** Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	EGP10A	EGP10B	EGP10C	EGP10D	EGP10F	EGP10G	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> = 55°C	I <sub>F(AV)</sub>	1.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30						A
Typical thermal resistance (Note 1)	R <sub>θJA</sub>	50						°C/W
Operating and storage temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-65 to +150						°C

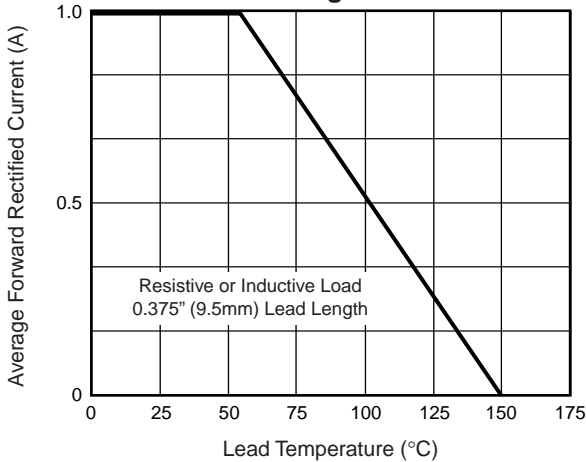
**Electrical Characteristics** Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	EGP10A	EGP10B	EGP10C	EGP10D	EGP10F	EGP10G	Unit
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.95				1.25		V
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	I <sub>R</sub>	5.0				100		μA
Maximum 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>	50						ns
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	22				15		pF

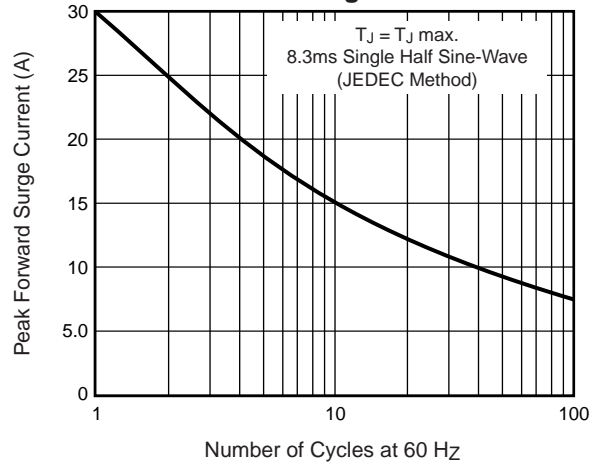
**Note:** (1) Thermal resistance from junction to ambient, and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

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

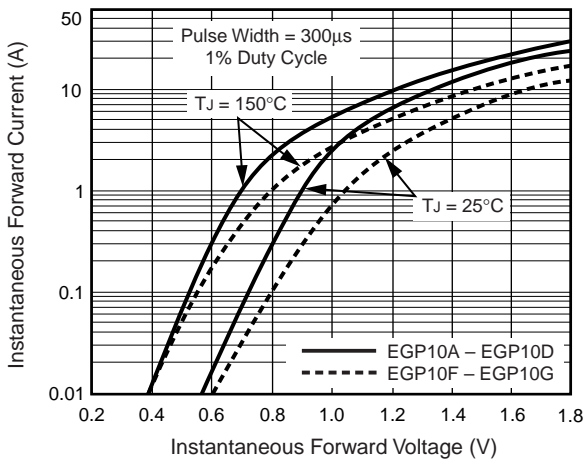
**Fig. 1 – Maximum Forward Current Derating Curve**



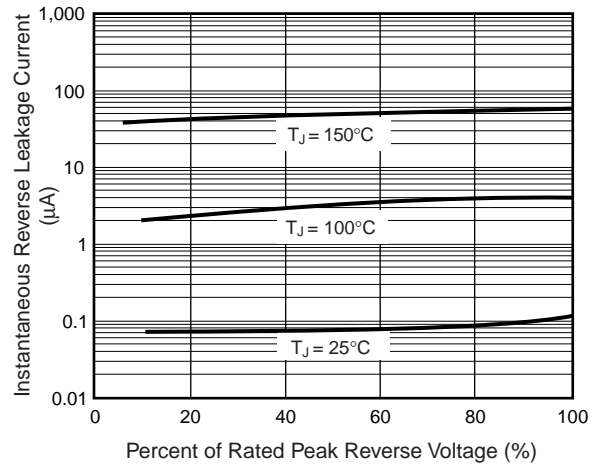
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



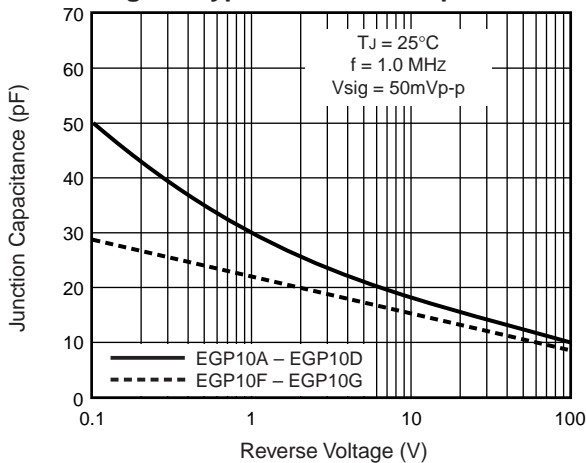
**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Leakage Characteristics**



**Fig. 5 – Typical Junction Capacitance**



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

