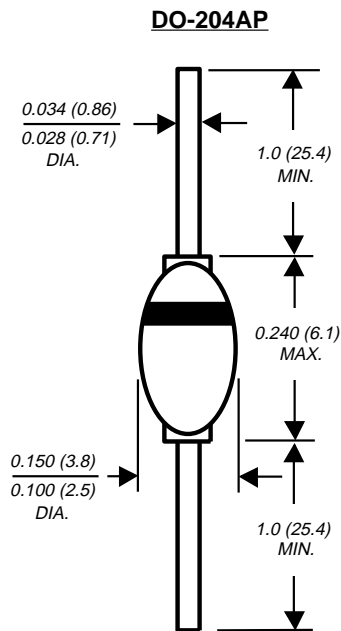
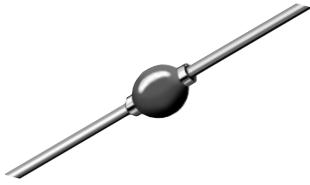


Glass Passivated Ultrafast Rectifier

Reverse Voltage 200 to 600 V

Forward Current 0.5 A



Dimensions in inches and (millimeters)

* Brazed lead assembly is covered by Patent No. 3,390,306

Patented*

Features

- ◆ High temperature metallurgically bonded construction
- ◆ Cavity-free glass passivated junction
- ◆ Superfast recovery time for high efficiency
- ◆ Low forward voltage, high current capability
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ Hermetically sealed package
- ◆ Low leakage current
- ◆ High surge current capability
- ◆ High temperature soldering guaranteed:
350°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

Case: JEDEC DO-204AP solid glass body

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

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.02 ounce, 0.56 gram

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

	SYMBOLS	FE1A	FE1B	FE1C	FE1D	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =75°C	I _{F(AV)}	1.0				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30				A
Typical thermal resistance (NOTE 1)	R _{θJA} R _{θJL}	65 20				°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175				°C

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

	SYMBOLS	FE1A	FE1B	FE1C	FE1D	UNITS
Maximum instantaneous forward voltage at 1.0A	V _F	0.95				V
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =100°C	I _R	2.0 50				μA
Maximum reverse recovery time at I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	35				ns
Typical junction capacitance at 4V, 1MHz	C _J	45				pF

NOTES:

(1) Thermal resistance from junction to ambient and/or lead, 0.375" (9.5mm) lead length mounted on P.C.B. with 0.5 x 0.5 (12 x 12mm) copper pads.

Glass Passivated Ultrafast Rectifier

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

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

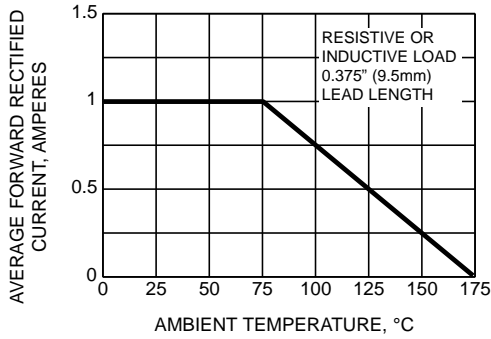


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

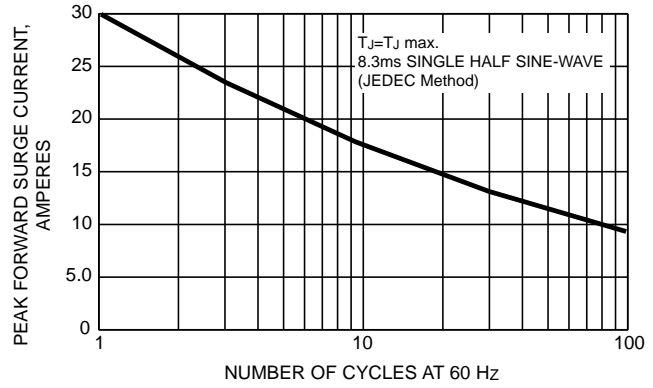


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

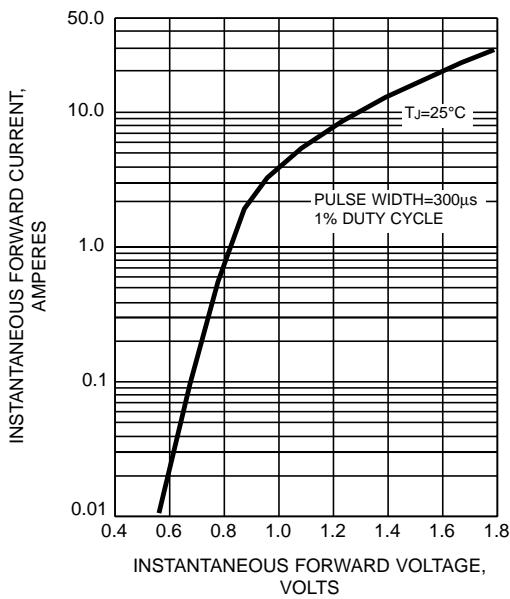


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

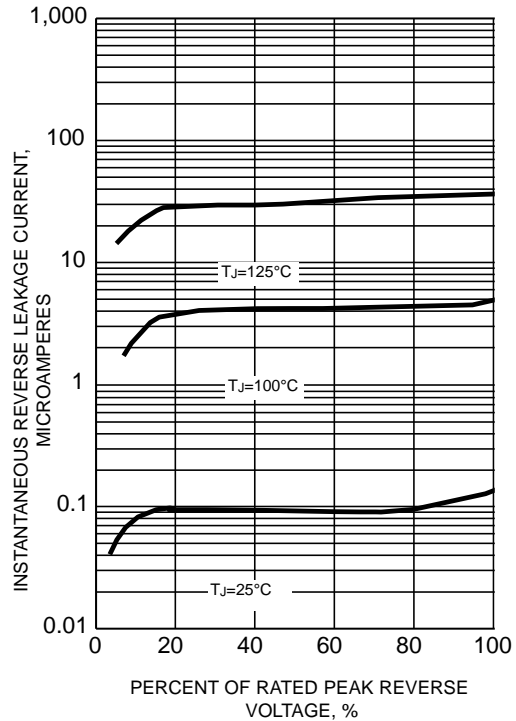


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

