

FE1A THRU FE1D

GLASS PASSIVATED FAST EFFICIENT RECTIFIER

Reverse Voltage - 50 to 200 Volts Forward Current - 1.0 Ampere

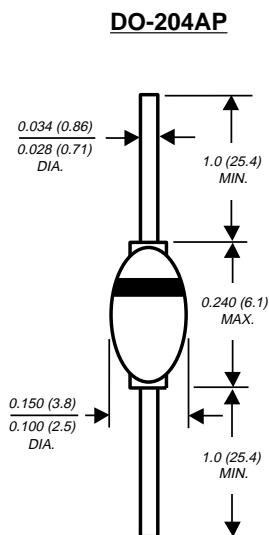
FEATURES

- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free 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

PATENTED*



Dimensions in inches and (millimeters)

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	FE1A	FE1B	FE1C	FE1D	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	150	200	Volts
Maximum RMS voltage	VRMS	35	70	105	140	Volts
Maximum DC blocking voltage	VDC	50	100	150	200	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=75°C	I(AV)	1.0				Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30.0				Amps
Maximum instantaneous forward voltage at 1.0A	VF	0.95				Volts
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=100°C	IR	2.0 50.0				μA
Maximum reverse recovery time (NOTE 1)	trr	35.0				ns
Typical junction capacitance (NOTE 2)	CJ	45.0				pF
Typical thermal resistance (NOTE 3)	RθJA RθJL	65.0 20.0				°C/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175				°C

NOTES:

- (1) Reverse recovery test conditions: IF=0.5A, IR=1.0A Irr=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) 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

RATINGS AND CHARACTERISTIC CURVES FE1A THRU FE1D

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

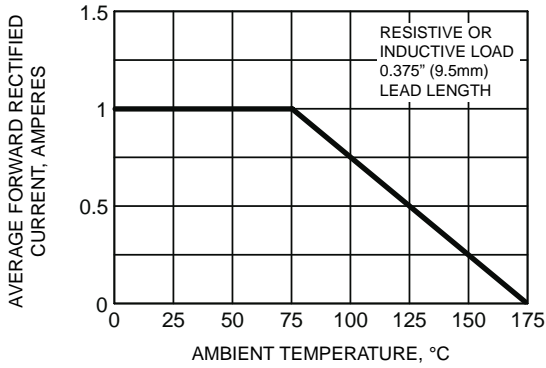


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

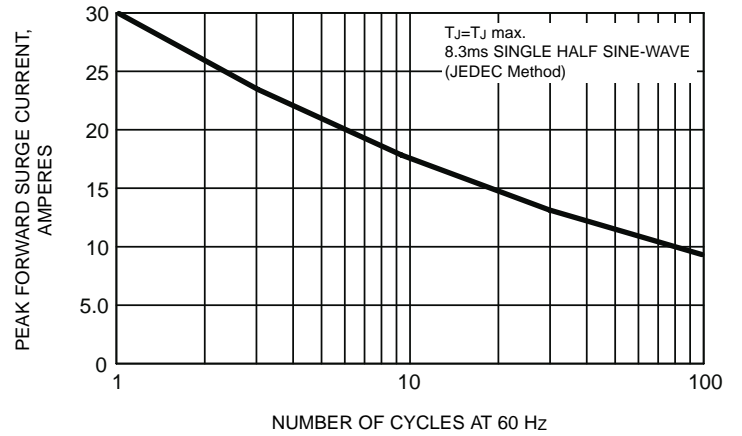


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

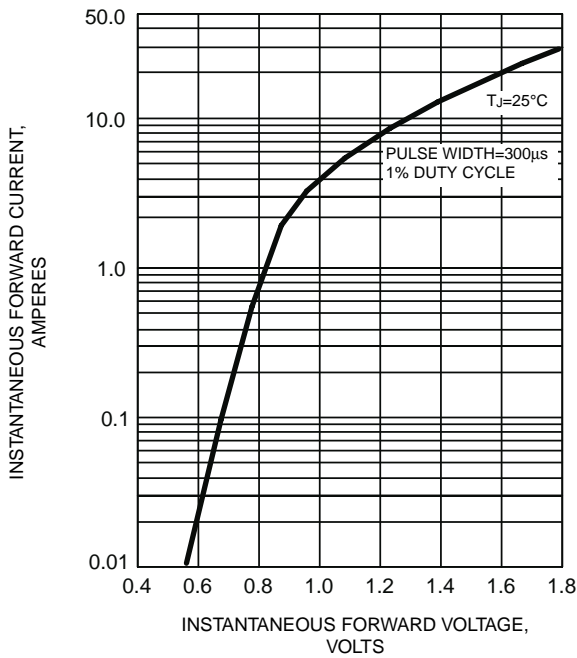


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

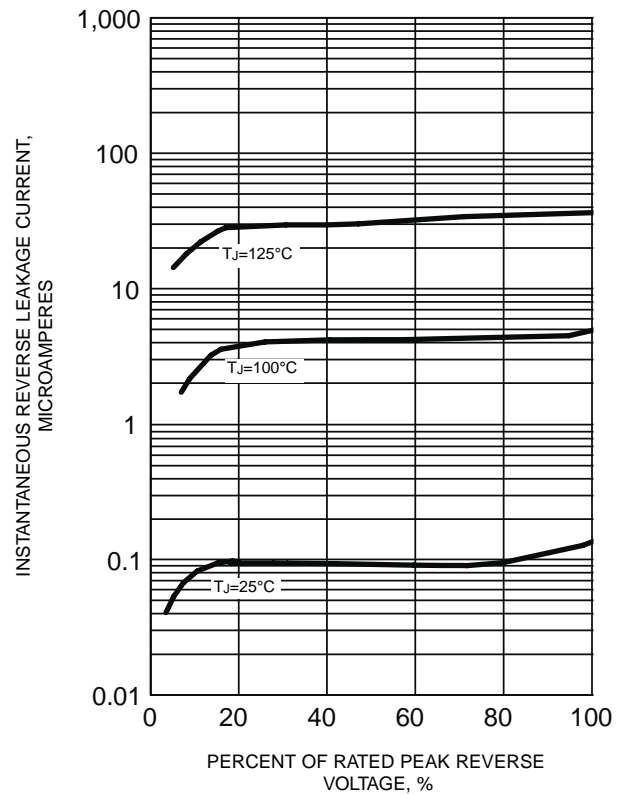


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

