

Silicon Diode

FE3A

Fast Efficient Rectifier

50V / 3A

DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

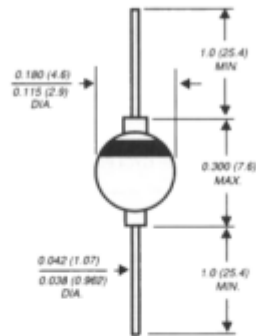
FE3A THRU FE3D

GLASS PASSIVATED FAST EFFICIENT RECTIFIER

Reverse Voltage - 50 to 200 Volts Forward Current - 3.0 Amperes

PATENTED *

Case Style G4



Dimensions in inches and (millimeters)

* Brazed-lead assembly is covered by Patent No. 3,930,306

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: Solid glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.037 ounce, 1.04 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	FE3A	FE3B	FE3C	FE3D	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=55°C	IAV	3.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	125.0				Amps
Maximum instantaneous forward voltage at 3.0A	VF	0.95				Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5.0 50.0				µA
Maximum reverse recovery time (NOTE 1)	trr	35.0				ns
Typical junction capacitance (NOTE 2)	CJ	100.0				pF
Typical thermal resistance (NOTE 3, 4)	REJA REJL	55.0 20.0				°C/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175				°C

NOTES:

- (1) Reverse recovery test conditions: IR=0.5A, IFR=1.0A, IFR=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length mounted on P.C.B.
- (4) Thermal resistance from junction to lead at 0.375" (9.5mm) lead length with both leads attached to heatsinks

RATINGS AND CHARACTERISTIC CURVES FE3A THRU FE3D

