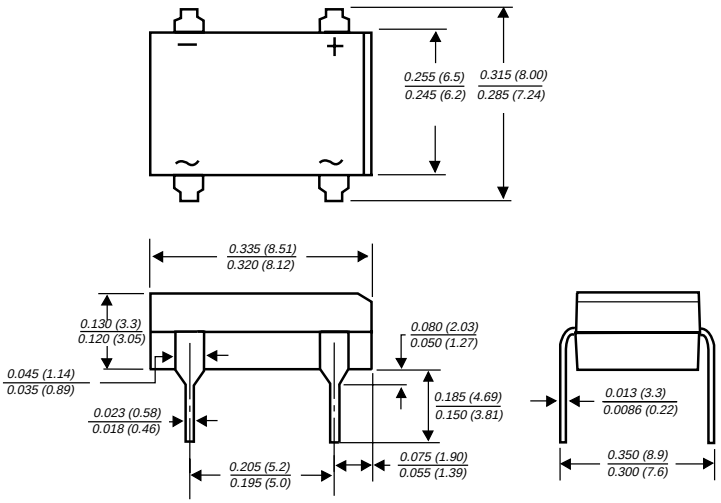
GENERAL SEMICONDUCTOR®

EDF1AM thru EDF1DM

Miniature Glass Passivated Ultrafast Bridge Rectifier

Reverse Voltage 50 and 200V
Forward Current 1.0A

Case Style DFM



Dimensions in inches and (millimeters)

Features

- Plastic package used has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under Recognized Component Index, file number E54214
- Glass passivated chip junction
- High forward surge current capability
- Ideal for printed circuit boards
- Superfast recovery times for high efficiency
- High temperature soldering guaranteed: 260°C/10 seconds, at 5 lbs. (2.3kg) tension

Mechanical Data

Case: Molded plastic body over passivated junctions

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

Polarity: Polarity symbols as marked on body

Mounting Position: Any

Weight: 0.014oz., 0.4g

Packaging codes/options:
45/50 ea. per Bulk Tube

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	EDF1AM	EDF1BM	EDF1CM	EDF1DM	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	V
Maximum RMS voltage	V_{RMS}	35	70	106	140	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	V
Maximum average forward output rectified current at T_A = 40°C	$I_{F(AV)}$	1.0				A
Peak forward surge current single half sine-wave super-imposed on rated load (JEDEC Method) T_J = 150°C	I_{FSM}	50				A
Rating for fusing (t < 8.3ms)	I^2t	10				A^2sec
Typical thermal resistance per leg (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	38 12				°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150				°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter		Symbol	EDF1AM	EDF1BM	EDF1CM	EDF1DM	Unit
Max. instantaneous forward voltage drop per leg at 1.0A		V_F	1.05				V
Maximum reverse current at rated DC blocking voltage	T_A = 25°C T_A = 125°C	I_R	5.0 1.0				µA mA
Maximum reverse recovery time at I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A		t_{rr}	50				ns

Note: (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.51 x 0.51" (13 x 13mm) copper pads

9/5/00

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Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 - Derating Curves Output Rectified Current

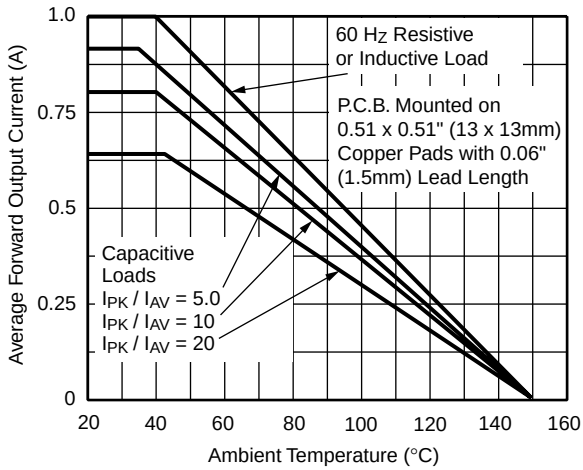

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

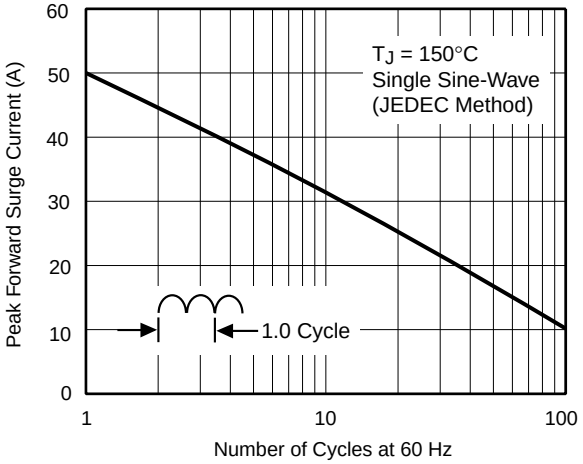

Fig. 3 - Typical Forward Characteristics Per Leg

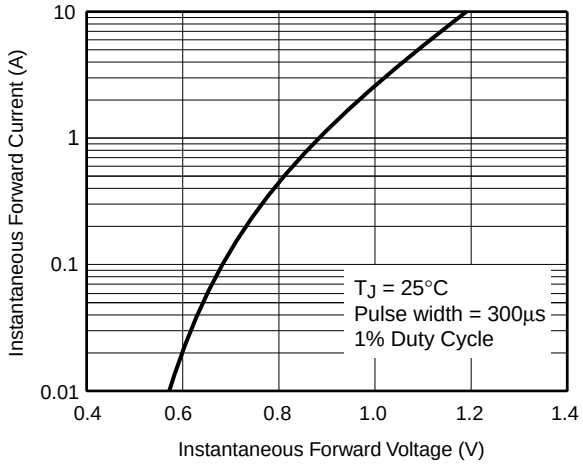

Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

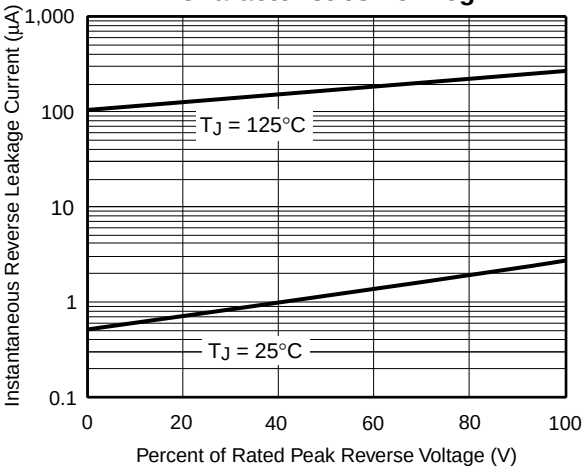

Fig. 5 - Typical Junction Capacitance Per Leg