
semiconductors :: product :: Ultrafast Recovery Rectifiers

## Product: Ultrafast Recovery Rectifiers

FAGOR ELECTRONICA's Ultrafast Recovery Rectifiers offer reverse recovery times down to 30 ns using broad range of forward current possibilities and packages.

Ideal for high frequency applications like SMPS, Monitors, Electronic Ballast, Inverters....
Manufactured using HYPERECTIFIER © technology, we offer these devices housed either in leaded packages or SMD.

| Product | Family | $\mathrm{I}_{\mathrm{F}(\mathrm{AV})}(\mathrm{A})$ | $\mathrm{I}_{\mathrm{FSM}}(\mathrm{A})$ | $\mathrm{V}_{\mathrm{RRM}}(\mathrm{V})$ | $\mathrm{V}_{\mathrm{F}}(\mathrm{V})$ | $\mathrm{T}_{\mathrm{RR}}(\mathrm{ns})$ | OUTLINE |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FUF4007 | FUF4000 | 1.0 | 30 | 1000 | 1.7 | 75 | DO-41 |

1 Amp. Glass Passivated Ultrafast Recovery Rectifier


Maximum Ratings, according to IEC publication No. 134

|  |  | FVF4001 | fif 402 | fif 4003 | Fiv409 | fif 4005 | Fiv406 | fif 4007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{V}_{\text {RRM }}$ | Peak Recurrent reverse voltage (V) | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| $\mathrm{V}_{\text {RMS }}$ | Maximum RMS voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| $V_{D C}$ | Maximum DC blocking voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| $\mathrm{I}_{\text {FAVD }}$ | Forward current at Tamb $=55^{\circ} \mathrm{C}$ |  |  |  | 1 A |  |  |  |
| $\mathrm{I}_{\text {PM }}$ | Recurrent peak forward surge current |  |  |  | 10 A |  |  |  |
| $\mathrm{I}_{\text {FSM }}$ | 8.3 ms. peak forward surge current (Jedec Method) |  |  |  | 30 A |  |  |  |
| $\mathrm{t}_{\text {tr }}$ | Max. reverse recovery time from $\mathrm{I}_{\mathrm{F}}=0.5 \mathrm{~A} ; \mathrm{I}_{\mathrm{R}}=1 \mathrm{~A} ; \mathrm{I}_{\mathrm{RR}}=0.25 \mathrm{~A}$ |  |  | ns |  |  | 75 ns |  |
| $\mathrm{C}_{\mathrm{j}}$ | Typical Junction Capacitance at 1 MHz and reverse voltaje of $4 \mathrm{~V}_{\mathrm{DC}}$ |  |  |  | 15 pF |  |  |  |
| $\mathrm{T}_{\mathrm{j}}$ | Operating temperature range |  |  | -65 | to +15 | $0^{\circ} \mathrm{C}$ |  |  |
| $\mathrm{T}_{\text {stg }}$ | Storage temperature range |  |  | -65 | to +150 | $0^{\circ} \mathrm{C}$ |  |  |
| $\mathrm{E}_{\text {RSM }}$ | Maximum non repetitive peak reverse avalanche energy. $\mathrm{IR}_{\mathrm{R}}=0.5 \mathrm{~A} ; \mathrm{T}_{\mathrm{J}}=25^{\circ} \mathrm{C}$ |  |  |  | 20 m |  |  |  |

## Electrical Characteristics at Tamb $=25^{\circ} \mathrm{C}$

| $\mathrm{V}_{\mathrm{F}}$ | Max. forward voltage drop at $\mathrm{I}_{\mathrm{F}}=1 \mathrm{~A}$ | 1.3 V | 1.7 V |
| :--- | :--- | :---: | :---: |
| $\mathrm{I}_{\mathrm{R}}$ | Max. reverse current at $\mathrm{V}_{\text {RRM }}$ at $25^{\circ} \mathrm{C}$ | $5 \mu \mathrm{~A}$ |  |
| $\mathrm{R}_{\mathrm{Rbj} \mathrm{j}-\mathrm{a}}$ | Max. thermal resistance $(\mathrm{l}=10 \mathrm{~mm})$. | $50^{\circ} \mathrm{C} / \mathrm{W}$ |  |

