



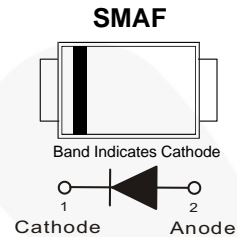
May 2015



# FSV330AF / FSV340AF Schottky Barrier Rectifier

## Features

- Low Forward Voltage Drop: 0.5 V Maximum at 3 A,  $T_A = 25^\circ\text{C}$
- Ultra Thin Profile - Maximum Height of 1.0 mm
- High Surge Capacity
- UL Flammability 94V-0 Classification
- MSL level 1
- RoHS Compliant / Green Mold Compound
- Industrial Device Qualified per AEC-Q101 Standards.  
Not intended for automotive applications without written authorization from Fairchild representative.



## Ordering Information

Part Number	Top Mark	Package	Packing Method
FSV330AF	FSV330AF	DO-214AD (SMAF)	Tape and Reel
FSV340AF	FSV340AF	DO-214AD (SMAF)	Tape and Reel

## Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Value		Unit
		FSV330AF	FSV340AF	
$V_{RRM}$	Recurrent Peak Reverse Voltage	30	40	V
$V_{RMS}$	RMS Reverse Voltage	21	28	V
$V_R$	DC Blocking Voltage	30	40	V
$I_{F(AV)}$	Average Forward Current	3		A
$I_{FSM}$	Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	80		A
$T_J$	Operating Junction Temperature Range	-55 to +150		$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150		$^\circ\text{C}$

FSV330AF / FSV340AF — Schottky Barrier Rectifier

## Thermal Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Value	Unit
$\Psi_{JL}$	Typical Thermal Characteristics, Junction-to-Lead <sup>(1)</sup>	20	$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Typical Thermal Resistance, Junction-to-Ambient <sup>(2)</sup>	150	$^\circ\text{C}/\text{W}$

### Notes:

1. Mounted on FR4 PCB, single-sided copper, with  $48\text{cm}^2$  copper pad area.
2. Mounted on FR4 PCB, single-sided copper, mini pad.

## Electrical Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
$V_F$	Forward Voltage	$I_F = 3\text{ A}$			0.5	V
$I_R$	Reverse Current	$V_R = V_{DC}$ , $T_A = 85^\circ\text{C}$			100	$\mu\text{A}$
$T_{rr}$	Reverse Recovery Time	$I_F = 0.5\text{ A}$ , $I_R = 1\text{ A}$ , $I_{rr} = 0.25\text{ A}$		12.62		ns
$C_J$	Junction Capacitance	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$		485		pF

### Typical Performance Characteristics

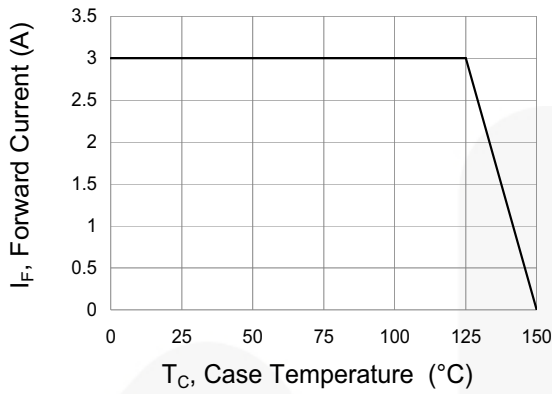


Figure 1. Forward Current Derating Curve

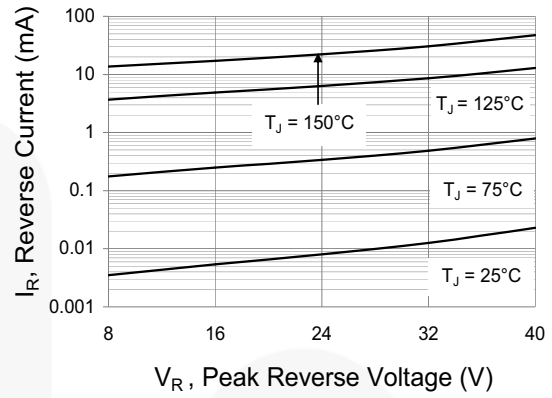


Figure 2. Typical Reverse Characteristics

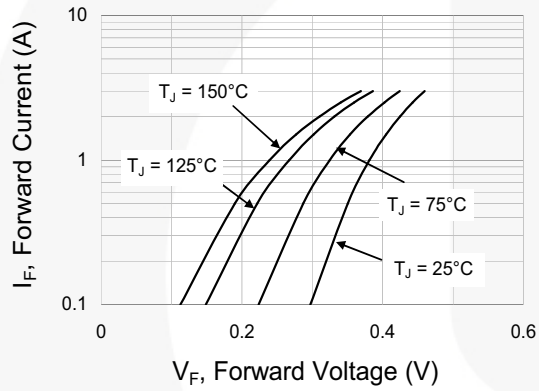


Figure 3. Typical Forward Characteristics

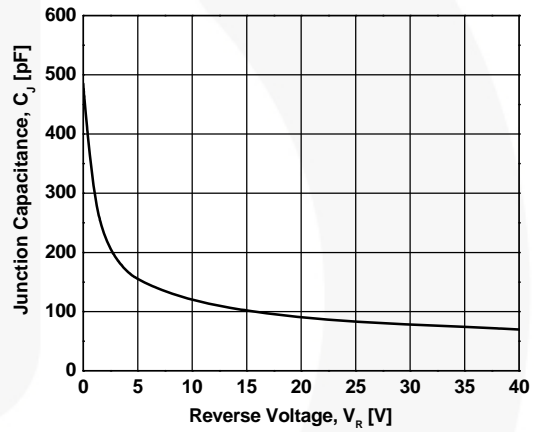
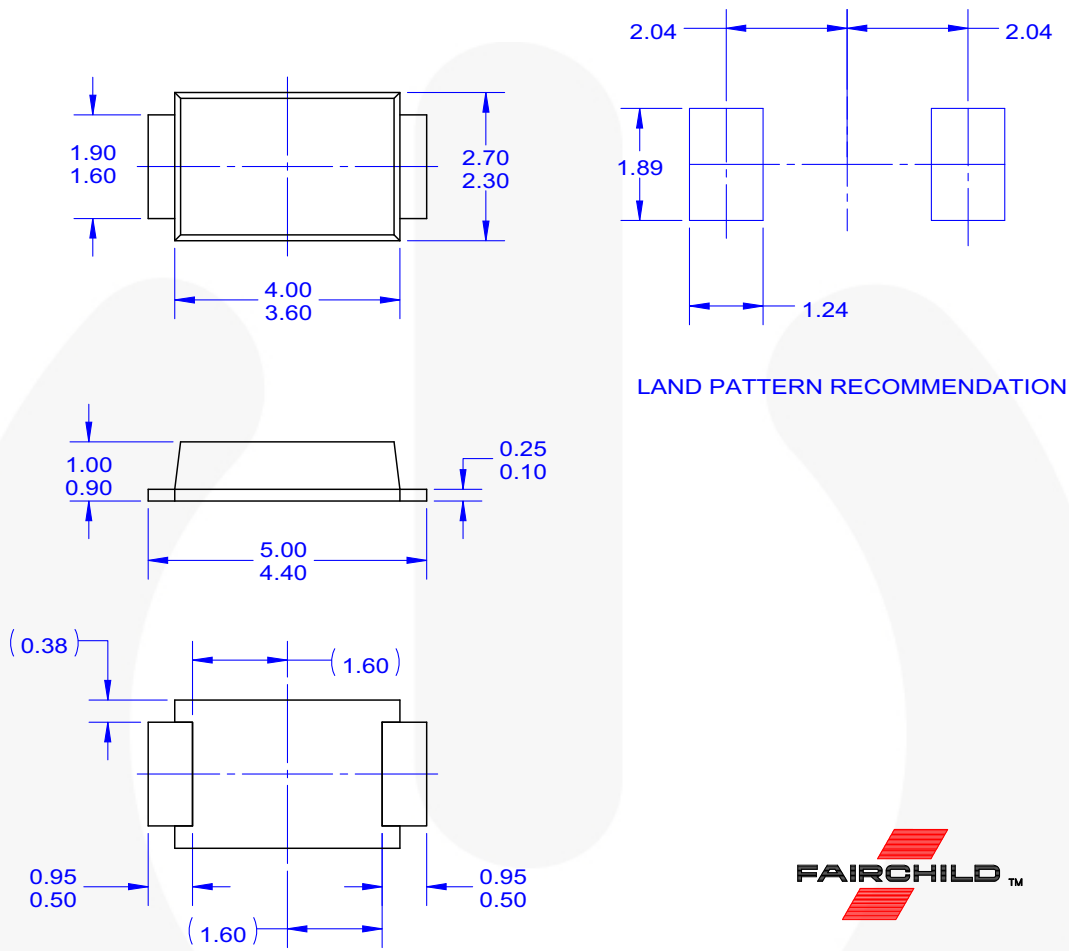


Figure 4. Typical Junction Capacitance

Physical Dimensions



- NOTES:
- A. THIS PACKAGE DOES NOT CONFORM TO ANY STANDARDS.
  - B. ALL DIMENSIONS ARE IN MILLIMETERS.
  - C. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
  - D. LAND PATTERN RECOMMENDATION PER IPC SODFL4725X110N
  - E. DRAWING FILE NAME: MKT-DO214AD REV2

Figure 5. 2-LEAD, SMAF, NON JEDEC FLAT LEAD



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