FSV240AF

Surface Mount Schottky Barrier Rectifier

Features

- Low Forward Voltage Drop: 0.5 V Maximum at 2 A, T_A = 25°C
- Ultra Thin Profile − Maximum Height of 1.0 mm
- High Surge Capacity
- UL Flammability 94V−0 Classification
- MSL 1
- Green Mold Compound
- These Devices are Pb−Free, Halogen Free Free and are RoHS Compliant

Specifications

### ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Symbol	Rating	Value	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	40	V
V_{RMS}	RMS Reverse Voltage	28	V
V_R	DC Blocking Voltage	40	V
$I_{F(AV)}$	Average Forward Current	2	A
I_{FSM}	Peak Forward Surge Current: 8.3 ms Single Half Sine−Wave Superimposed on Rated Load (JEDEC Method)	50	A
T_J	Operating Junction Temperature Range	−55 to +150	°C
T_{STG}	Storage Temperature Range	−55 to +150	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.
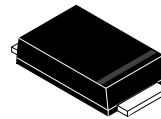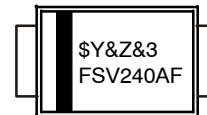
ON Semiconductor®

1 Cathode

2 Anode
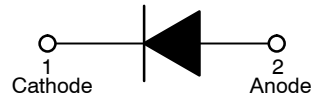
Schottky Barrier Rectifier

**DO−214AD
(SMAF)
CASE 403AD**

MARKING DIAGRAM

$Y&Z&3
FSV240AF

Band Indicates Cathode

$Y	= ON Semiconductor Logo
&Z	= Assembly Plant Code
&3	= Data Code (Year & Week)
FSV240AF	= Specific Device Code

ORDERING INFORMATION

THERMAL CHARACTERISTICS (T_A = 25°C unless otherwise noted) (Note 1)

Symbol	Characteristic	Value	Unit
Ψ_{JL}	Typical Thermal Characteristics, Junction−to−Lead (Note 2)	15	°C/W
$R_{\theta JA}$	Typical Thermal Resistance, Junction−to−Ambient	120	°C/W

1. Per JESD51−3 recommended thermal test board. Device mounted on FR−4 PCB, board size = 76.2 mm x 114.3 mm.
2. Thermocouple soldered at cathode lead.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_F	Forward Voltage	I_F = 2.0 A	–	–	0.5	V
I_R	Reverse Current	V_R = 40 V	–	–	0.1	mA
Trr	Reverse Recovery Time	I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A	–	9.65	–	ns
C_J	Junction Capacitance	V_R = 4 V, f = 1 MHz	–	98	–	pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

ORDERING INFORMATION

Part Number	Top Mark	Package	Shipping†
FSV240AF	FSV240AF	DO−214AD (SMAF) (Pb−Free/Halogen Free)	10000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

FSV240AF

TYPICAL PERFORMANCE CHARACTERISTICS
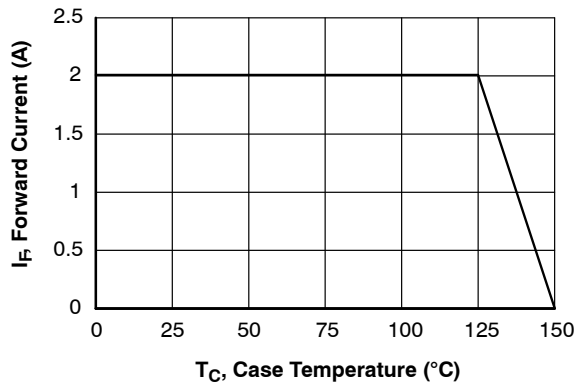
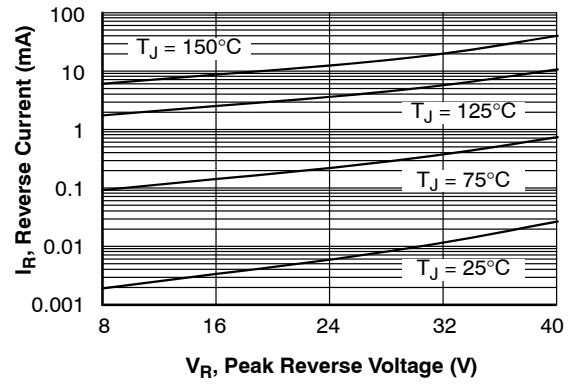Figure 1. Forward Current Derating Curve
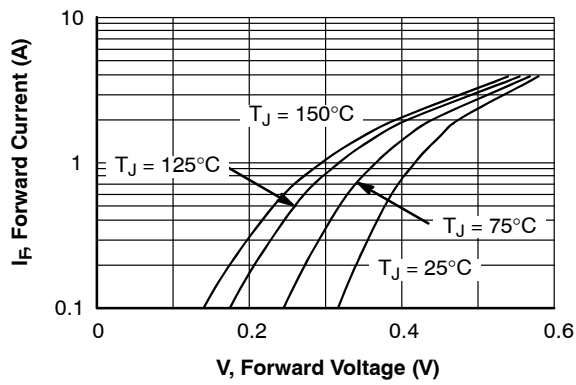
Figure 2. Typical Reverse Characteristics

Figure 3. Typical Forward Characteristics

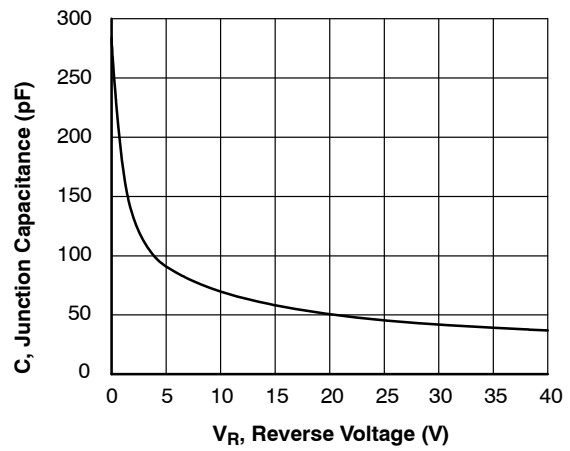Figure 4. Typical Junction Capacitance

SMA–FL
CASE 403AD
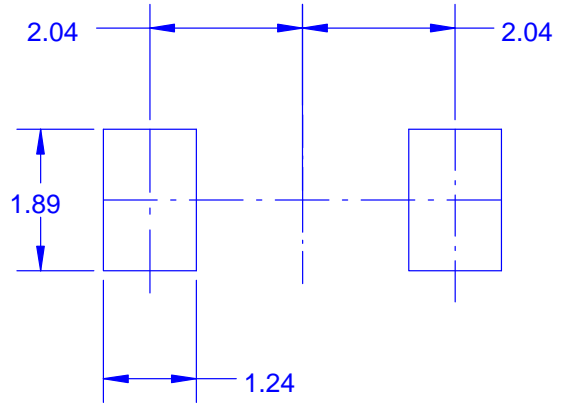ISSUE O

DATE 31 AUG 2016

1.90
1.60

2.70
2.30

4.00
3.60

2.04

2.04

1.89

1.24
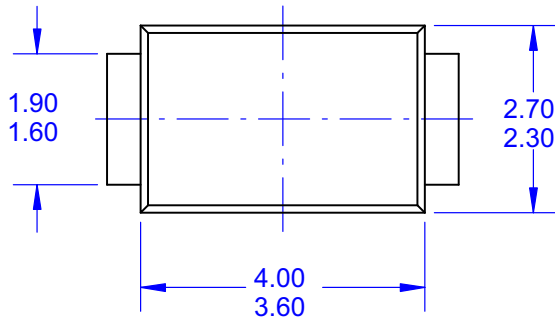
LAND PATTERN RECOMMENDATION

1.10
0.90

0.25
0.10

5.00
4.40

(0.38)

(1.60)

0.95
0.50

0.95
0.50

(1.60)
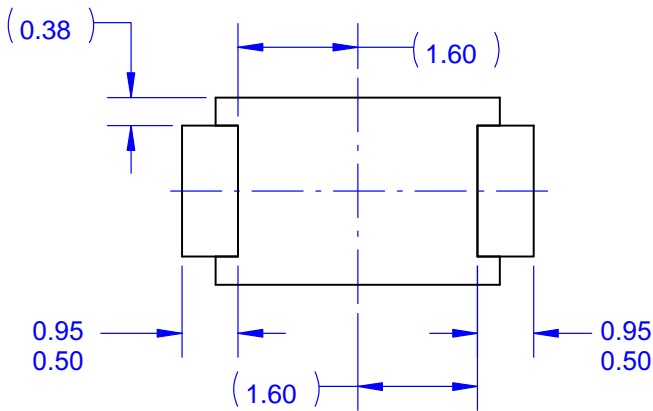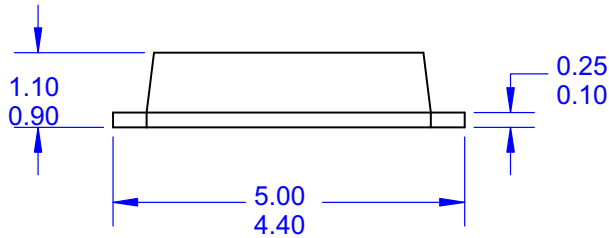
NOTES:
 A. THIS PACKAGE DOES NOT CONFORM TO
    ANY STANDARDS.
 B. ALL DIMENSIONS ARE IN MILLIMETERS.
 C. DIMENSIONS ARE EXCLUSIVE OF BURRS,
    MOLD FLASH AND TIE BAR PROTRUSIONS.

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STATUS:	**ON SEMICONDUCTOR STANDARD**	
NEW STANDARD:		
DESCRIPTION:	**SMA–FL**	**PAGE 1 OF 2**

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PUBLICATION ORDERING INFORMATION

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