

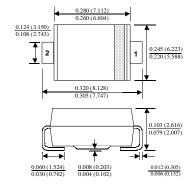
# SS32 - S310

### **Features**

- Metal to silicon rectifiers, majority carrier conduction.
- Low forward voltage drop.
- Easy pick and place.
- High surge current capability.



SMC/DO-214AB



# 3.0 Ampere Schottky Barrier Rectifiers

### Absolute Maximum Ratings\*

T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
lo	Average Rectified Current @ T <sub>A</sub> = 75°C	3.0	А
İf(surge)	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	100	А
P <sub>D</sub>	Total Device Dissipation Derate above 25°C	2.27 18	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient**	55	°C/W
$R_{\theta JC}$	Thermal Resistance, Junction to Case	17	°C/W
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C
TJ	Operating Junction Temperature	-55 to +150	°C

<sup>\*</sup>These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### **Electrical Characteristics**

T<sub>A</sub> = 25°C unless otherwise noted

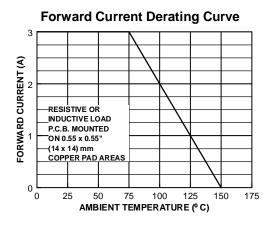
Parameter	Device						Units		
	32	33	34	35	36	38	39	310	
Peak Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	14	21	28	35	42	56	63	70	V
DC Reverse Voltage (Rated V <sub>R</sub> )	20	30	40	50	60	80	90	100	V
Maximum Reverse Current T <sub>A</sub> = 25°C				0	.5				mA
$@$ rated $V_R$ $T_A = 100^{\circ}C$	20 10						mA		
Maximum Forward Voltage @ 3.0 A		500		7:	50		850		mV

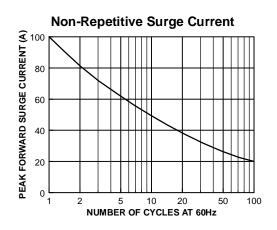
<sup>\*\*</sup> Device mounted on FR-4 PCB 0.55 x 0.55" (14 x 14 mm).

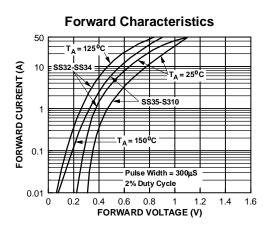
### **Surface Mount Schottky Barrier Rectifiers**

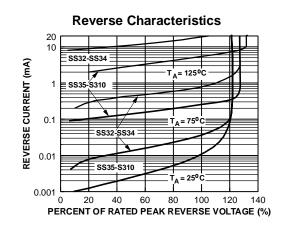
(continued)

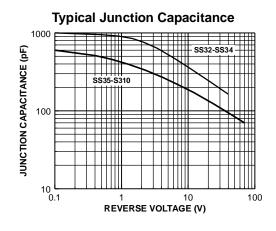
## **Typical Characteristics**

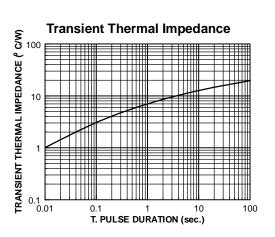










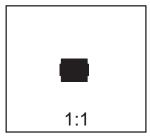


### **SMC/DO-214AB Package Dimensions**



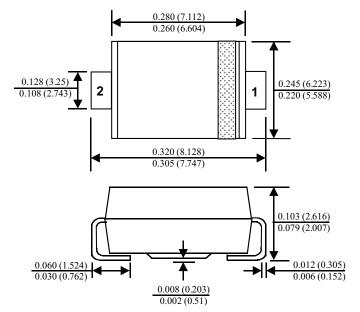
# SMC/DO-214AB (FS PKG Code P7)

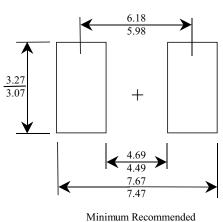




Scale 1:1 on letter size paper
Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 0.21





Land Pattern

August 1999, Rev. A

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FACT $^{\text{TM}}$  QFET $^{\text{TM}}$  FACT Quiet Series $^{\text{TM}}$  QS $^{\text{TM}}$ 

 $\begin{array}{lll} \mathsf{FAST}^{\circledast} & \mathsf{Quiet\,Series^{\mathsf{TM}}} \\ \mathsf{FASTr^{\mathsf{TM}}} & \mathsf{SuperSOT^{\mathsf{TM}}\text{-}3} \\ \mathsf{GTO^{\mathsf{TM}}} & \mathsf{SuperSOT^{\mathsf{TM}}\text{-}6} \\ \mathsf{HiSeC^{\mathsf{TM}}} & \mathsf{SuperSOT^{\mathsf{TM}}\text{-}8} \\ \end{array}$ 

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### PRODUCT STATUS DEFINITIONS

#### **Definition of Terms**

Datasheet Identification	Product Status	Definition				
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Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.				
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.				
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.				