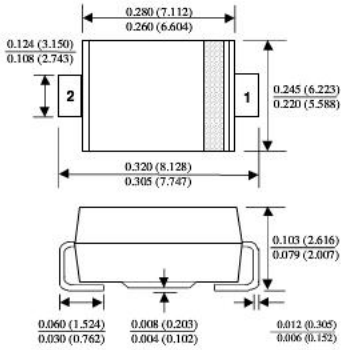
FAIRCHILD
SEMICONDUCTOR™

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_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I_O	Average Rectified Current @ T_A = 75°C	3.0	A
$i_{f(surge)}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	100	A
P_D	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_{stg}	Storage Temperature Range	-55 to +150	°C
T_J	Operating Junction Temperature	-55 to +150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**Device mounted on FR-4 PCB 0.55 x 0.55" (14 x 14 mm).

Electrical Characteristics

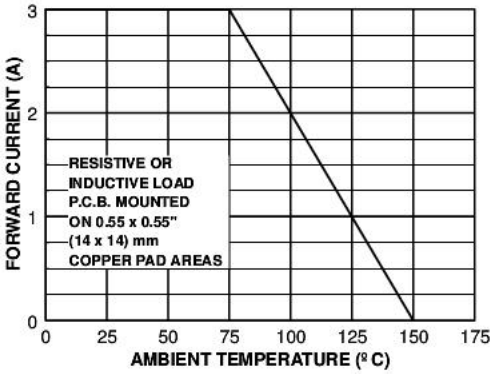
T_A = 25°C unless otherwise noted

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_R)	20	30	40	50	60	80	90	100	V
Maximum Reverse Current T_A = 25°C	0.5								mA
@ rated V_R T_A = 100°C	20			10					mA
Maximum Forward Voltage @ 3.0 A	500			750		850			mV

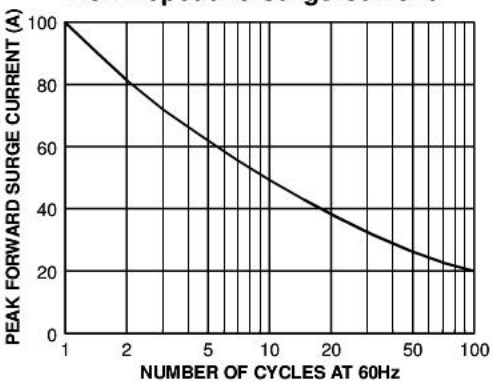
Surface Mount Schottky Barrier Rectifiers
(continued)

Typical Characteristics

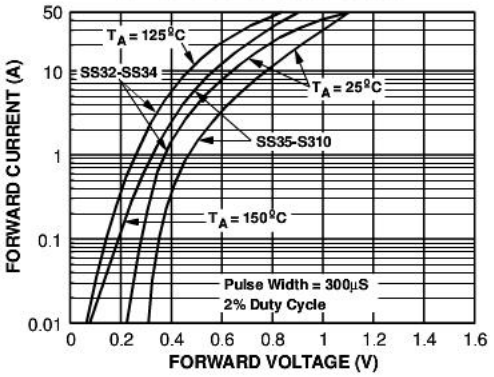
Forward Current Derating Curve



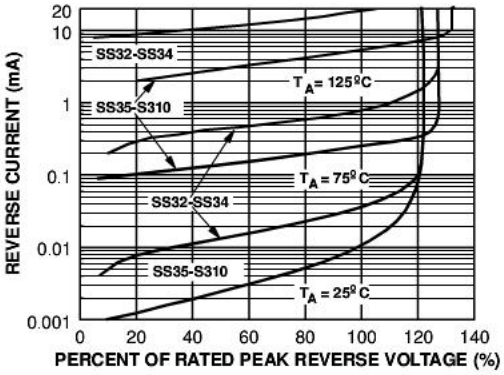
Non-Repetitive Surge Current



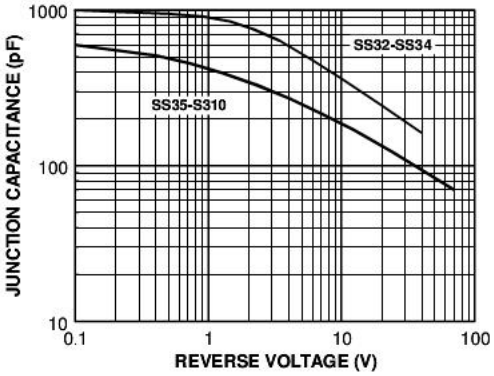
Forward Characteristics



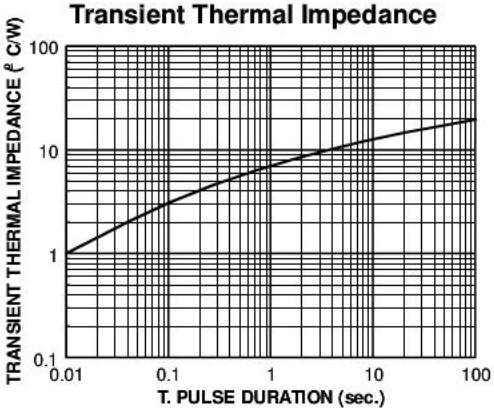
Reverse Characteristics



Typical Junction Capacitance



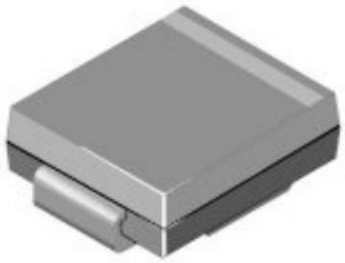
Transient Thermal Impedance

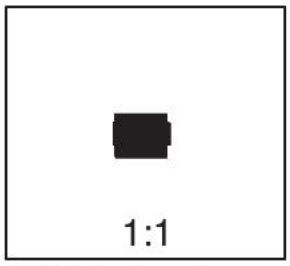


SMC/DO-214AB Package Dimensions

FAIRCHILD SEMICONDUCTOR™

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

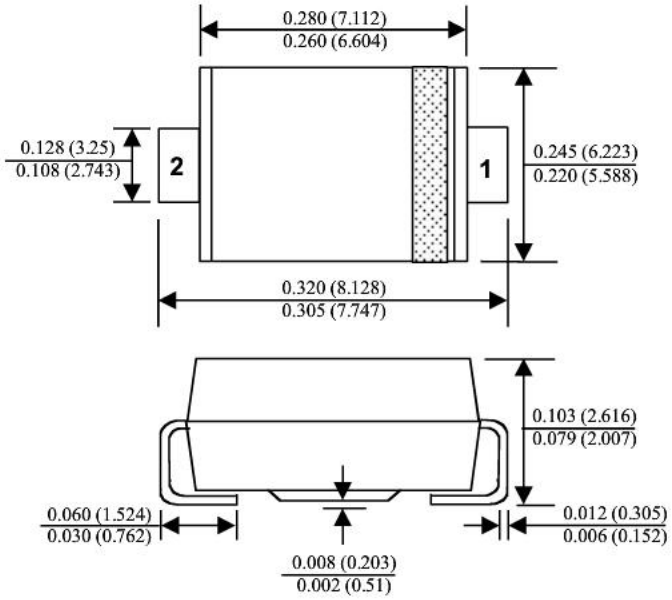


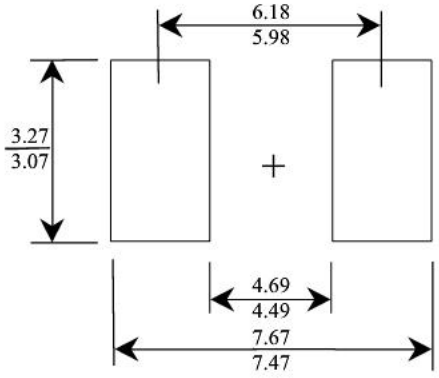


Scale 1:1 on letter size paper

Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 0.21





Minimum Recommended
Land Pattern

August 1999, Rev. A

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