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FAIRCHILD SEMICONDUCTOR®

October 2013

SS22 - S210
Schottky Rectifier

Features

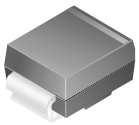
- Glass-Passivated Junctions
- High-Current Capability, Low V_F

Applications

- Low Voltage
- High-Frequency Inverters
- Free Wheeling
- Polarity Protection

Description

The SS22-S210 series includes high-efficiency, low power loss, general-propose Schottky rectifiers. The clip-bonded leg structure provides high thermal performance and low electrical resistance. These rectifier are suited for free wheeling, secondary rectification, and reverse polarity protection applications.



SMB/DO-214AA
COLOR BAND DENOTES CATHODE

Ordering Information

Part Number	Marking	Package	Packing Method
SS22	SS22	DO-214AA	Tape and Reel
SS23	SS23		
SS24	SS24		
SS25	SS25		
SS26	SS26		
SS28	SS28		
SS29	SS29		
S210	S210		

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°C unless otherwise noted.

Symbol	Parameter	Value								Units
		SS22	SS23	SS24	SS25	SS26	SS28	SS29	S210	
V_{RRM}	Maximum Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
$I_{F(AV)}$	Maximum Average Forward Current: 0.375-inch Lead Length at T_A = 75°C	2.0								A
I_{FSM}	Non-Repetitive Peak Forward Surge Current: 8.3 ms Single Half-Sine Wave	50								A
T_{STG}	Storage Temperature Range	-65 to +150								°C
T_J	Operating Junction Temperature	-65 to +125								°C

Thermal Characteristics[1]

Symbol	Parameter	Value	Units
P_D	Power Dissipation	1.3	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient[1]	75	°C/W

Note:

1. Device mounted on FE-4 PCB 0.013 mm.

Electrical Characteristics

Values are at T_A = 25°C unless otherwise noted.

Symbol	Parameter	Test Conditions	Value								Units
			SS22	SS23	SS24	SS25	SS26	SS28	SS29	S210	
V_F	Forward Voltage	I_F = 2.0 A	500			700		850			mV
I_R	Reverse Current at Rated V_R	T_A = 25°C	0.4								mA
		T_A = 100°C	10								

Typical Performance Characteristics

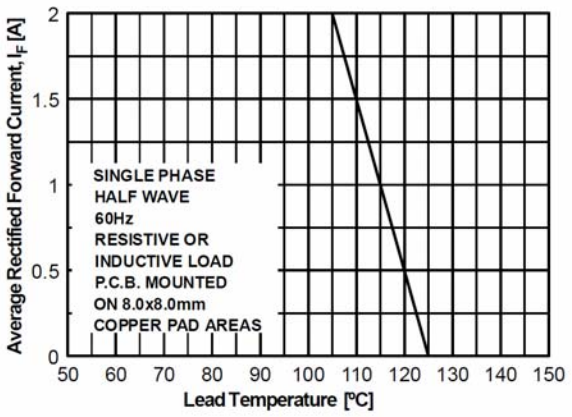


Figure 1. Forward Current Derating Curve

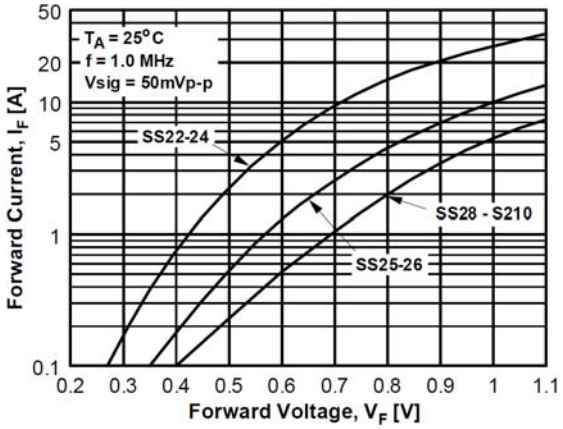


Figure 2. Forward Current Characteristics

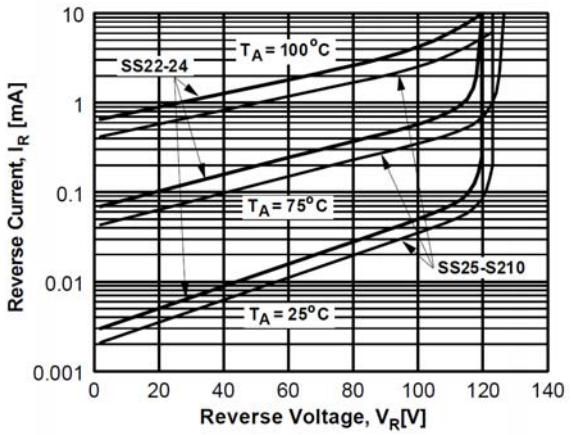


Figure 3. Reverse Current vs. Reverse Voltage

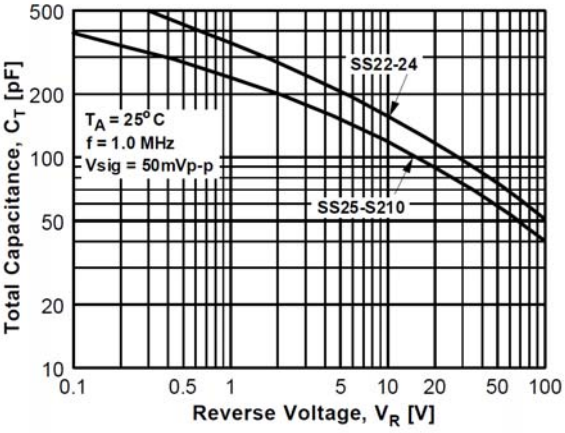


Figure 4. Total Capacitance

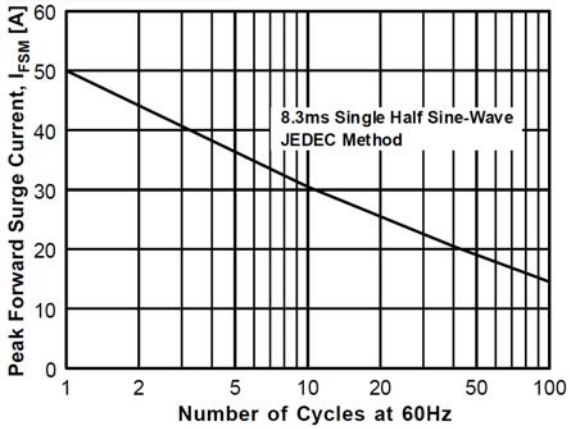
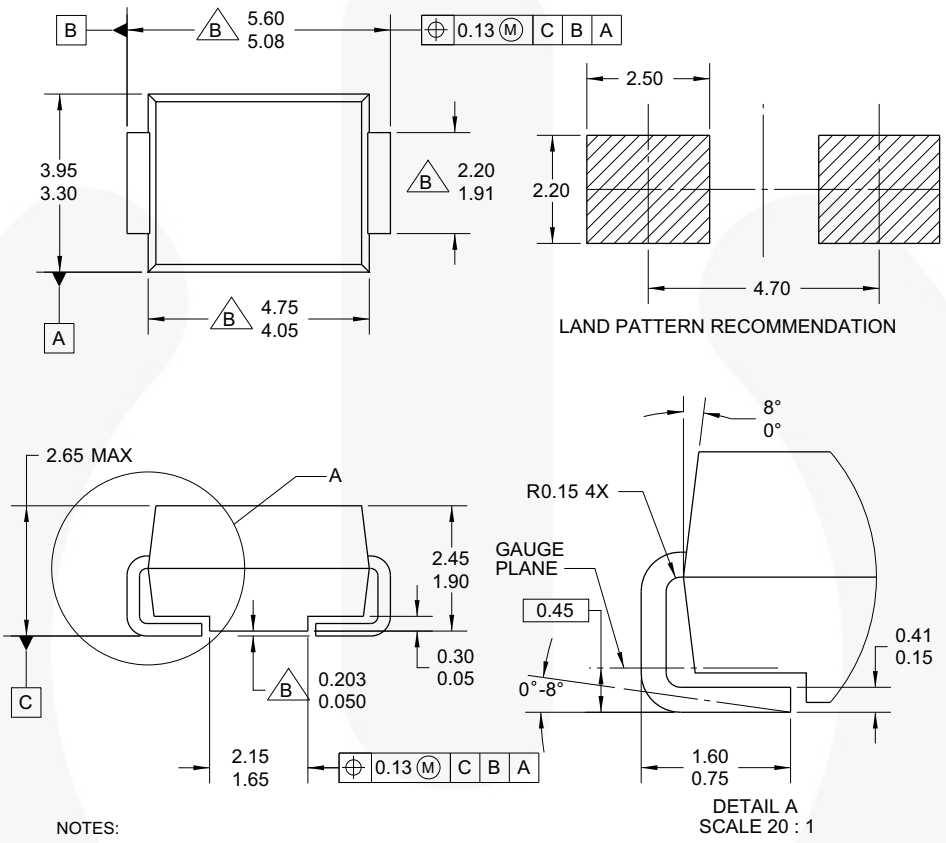


Figure 5. Non-Repetitive Surge Current

Physical Dimension

DO-214AA



NOTES:

A. EXCEPT WHERE NOTED CONFORMS TO JEDEC DO214 VARIATION AA.
B. DOES NOT COMPLY JEDEC STD. VALUE.
C. ALL DIMENSIONS ARE IN MILLIMETERS.
D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
E. DIMENSION AND TOLERANCE AS PER ASME Y14.5-1994.
F. LAND PATTERN STD. DIOM5336X240M.
G. DRAWING FILE NAME: DO214AAREV1

Figure 6. 2-LEAD, SMB, JEDEC DO-214, VARIATION AA (ACTIVE)

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http://www.fairchildsemi.com/dwg/DO/DO214AA.pdf.

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Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

Rev. I66

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Адрес: 198099, Санкт-Петербург, Промышленная ул, дом № 19, литера Н, помещение 100-Н Офис 331