Schottky Rectifier

SS23, SS24, SS25, SS26, SS28, SS29, S210

The SS23−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.

Features

- Glass−Passivated Junctions
- High−Current Capability, Low V_F
- This is a Pb−Free and Halid Free Device

Applications:

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

SCHOTTKY BARRIER RECTIFIER 2.0 AMPERES



SMB
CASE 403AF

MARKING DIAGRAM



XXXX = Specific Device Code
A = Assembly Location
Y = Year
WW = Work Week
▪ = Pb−Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

Part Number	Device Code Marking	Package	Shipping†
SS23	SS23	SMB (Pb−Free)	3000 / Tape & Reel
SS24	SS24		
SS25	SS25		
SS26	SS26		
SS28	SS28		
SS29	SS29		
S210	S210		

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

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May, 2022 − Rev. 2
Publication Order Number:
SS29/D

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

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

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Power Dissipation	P_D	1.3	W
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	75	°C/W

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

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

Symbol	Rating	Test Conditions	Value							Unit
			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							

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.

TYPICAL CHARACTERISTICS

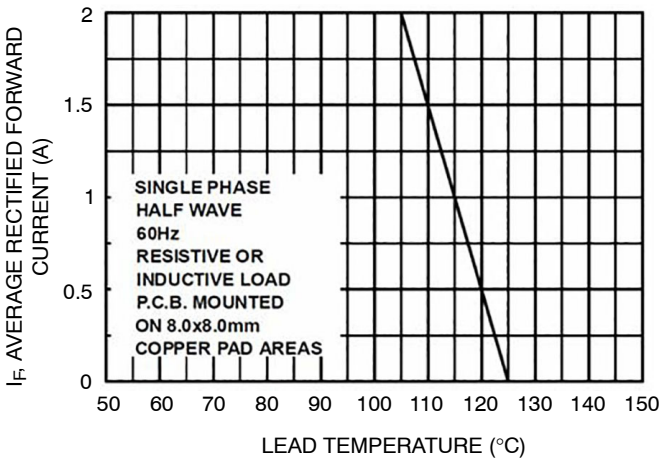


Figure 1. Forward Current Derating Curve

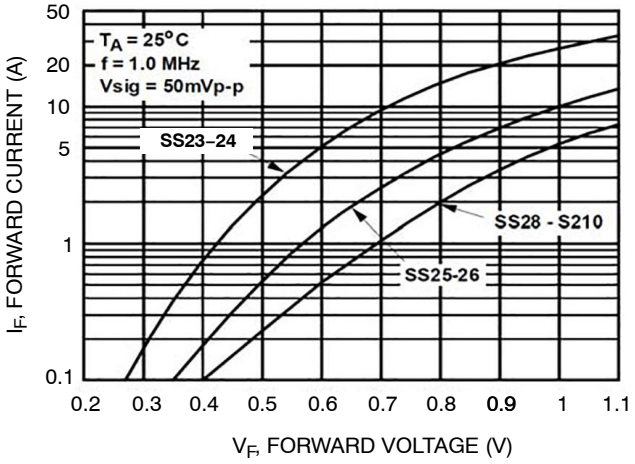


Figure 2. Forward Current Characteristics

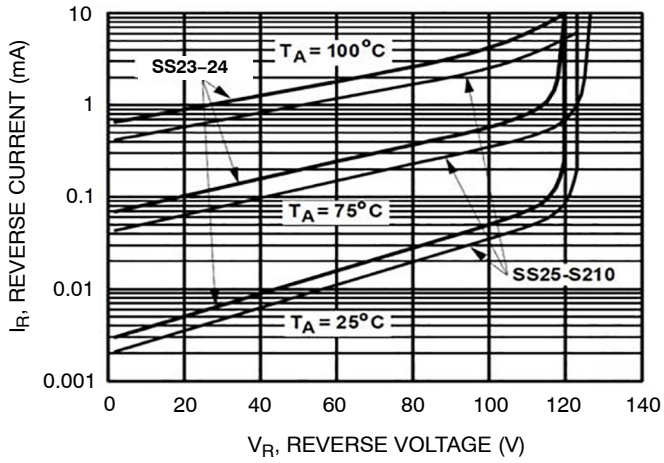


Figure 3. Reverse Current vs. Reverse Voltage

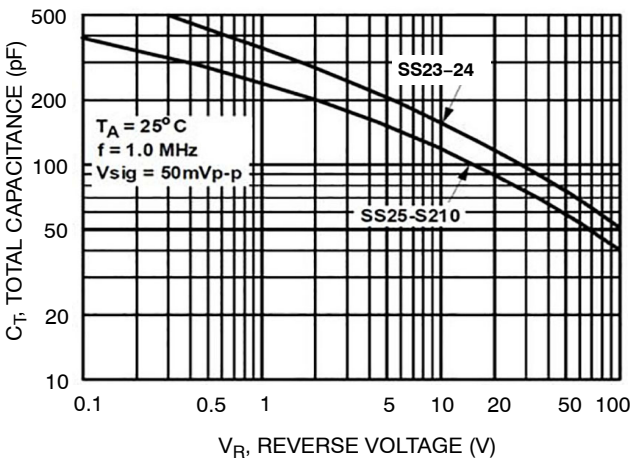


Figure 4. Total Capacitance

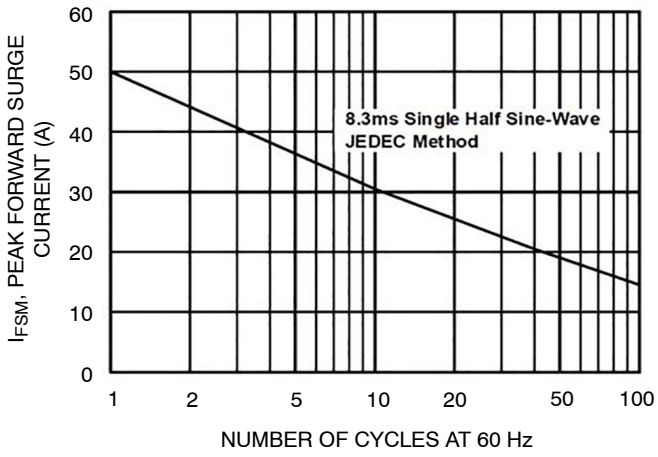
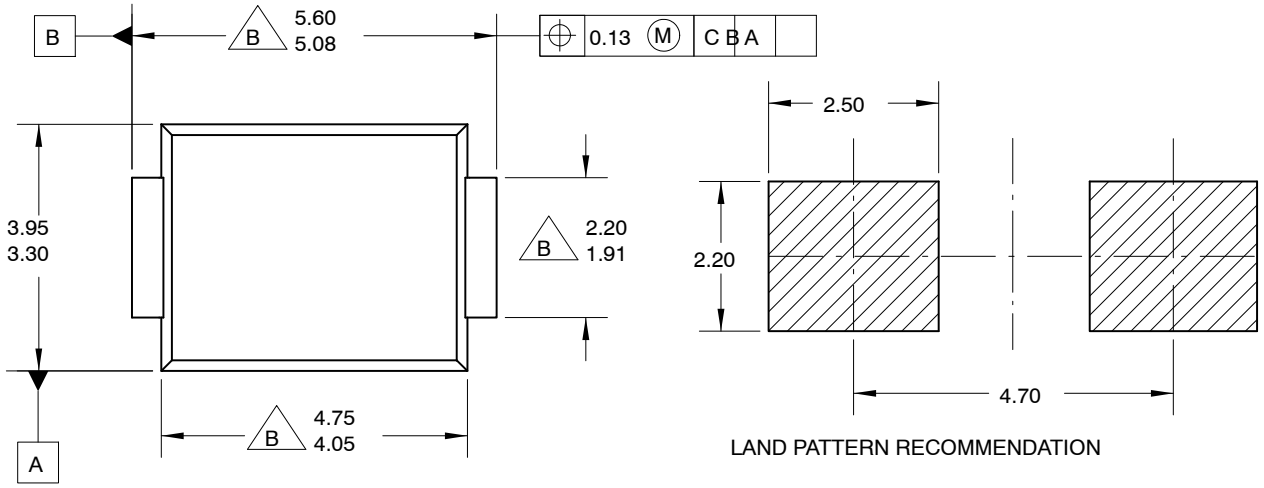


Figure 5. Non−Repetitive Surge Current

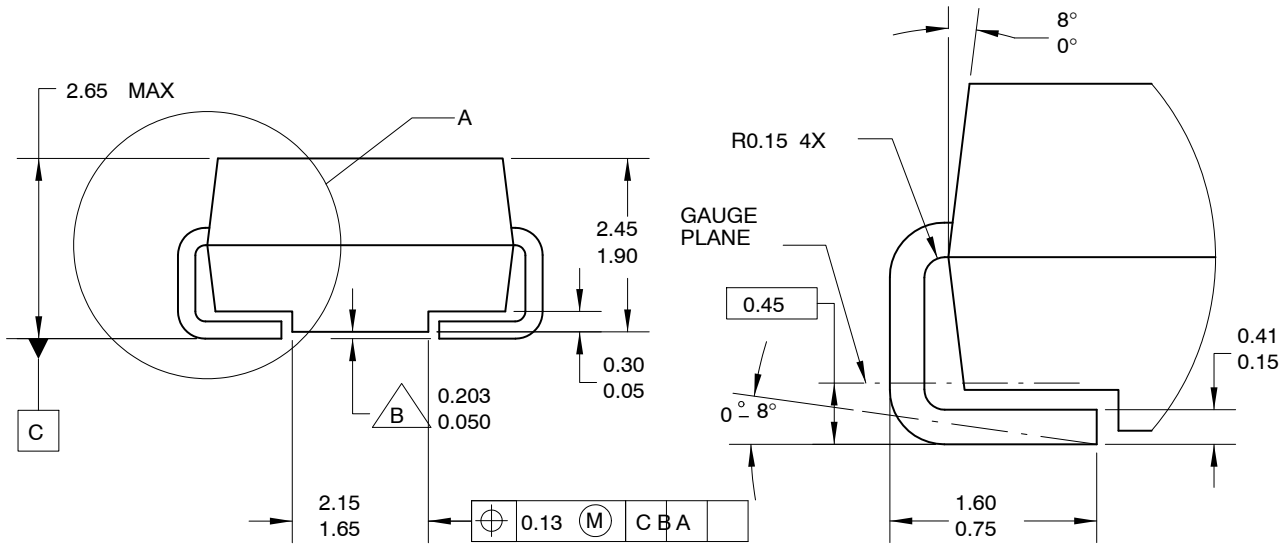
MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

SMB
CASE 403AF
ISSUE O

DATE 31 AUG 2016



LAND PATTERN RECOMMENDATION



DETAIL A
SCALE 20 : 1

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.

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