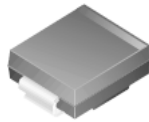


S3N

3A, 1200V Surface Mount Rectifier

Features

- Low Profile Package
- Glass Passivated Junction.
- High Breakdown Voltage Rating
- UL Flammability Classification 94V-0



SMC/DO-214AB

COLOR BAND DENOTES CATHODE



ELECTRICAL SYMBOL

DEVICE MARKING CODE : S3N

Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{RRM}	Maximum Repetitive Reverse Voltage	1200	V
I _{F(AV)}	Average Rectified Forward Current, @ T _A =100°C	3.0	A
I _{FSM}	Non-Repetitive Peak Forward Surge Current 8.3msec Single Half Sine Wave	100	A
T _{stg}	Storage Temperature range	-55 to +150	°C
T _J	Operating Junction Temperature Range	-55 to +150	°C

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

Thermal Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Typical	Units
R _{θJL}	Thermal Resistance, Junction to Lead	13	°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient	47	°C/W

* Device mounted on FR-4 PCB with 0.4" x 0.4" (10mm x 10mm) Cu pad

Electrical Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
V _F	Forward Voltage	I _F = 3.0A			1.2	V
T _{rr}	Reverse Recovery Time	I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A			2.5	μs
I _R	Reverse Current	V _r = 1200V T _A =25°C T _A =125°C			5.0 250	μA μA
C _T	Typical Junction Capacitance	V _r = 4.0V, f = 1.0MHz			60	pF

Typical Characteristics

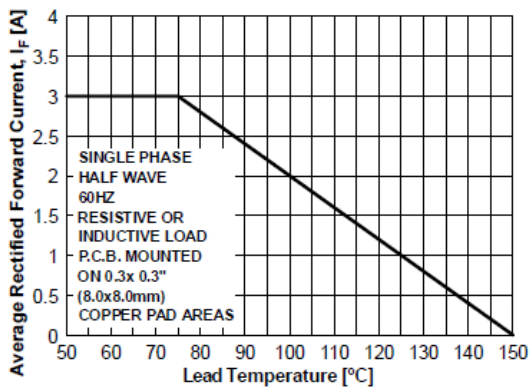


Figure 1. Forward Current Deration Curve

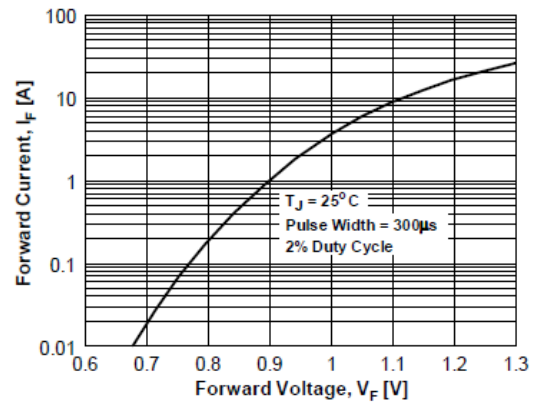


Figure 2. Forward Voltage Characteristics

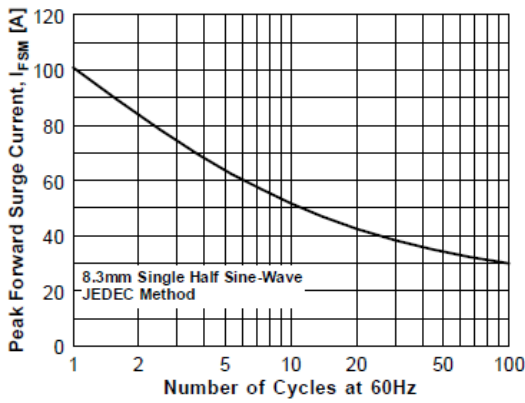


Figure 3. Non-Repetitive Surge Current

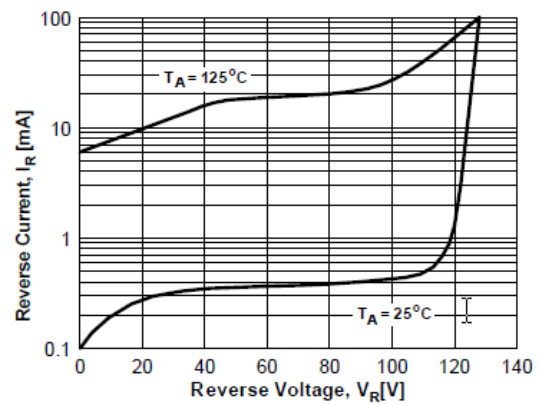


Figure 4. Reverse Current vs Reverse Voltage

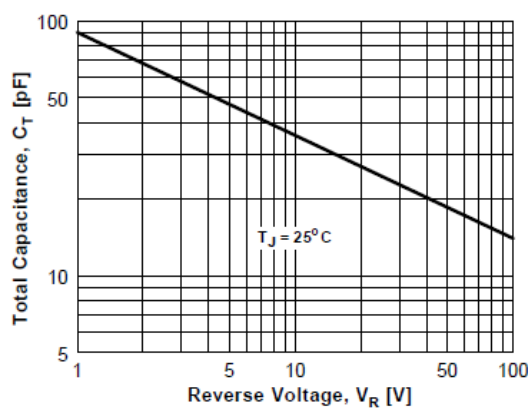
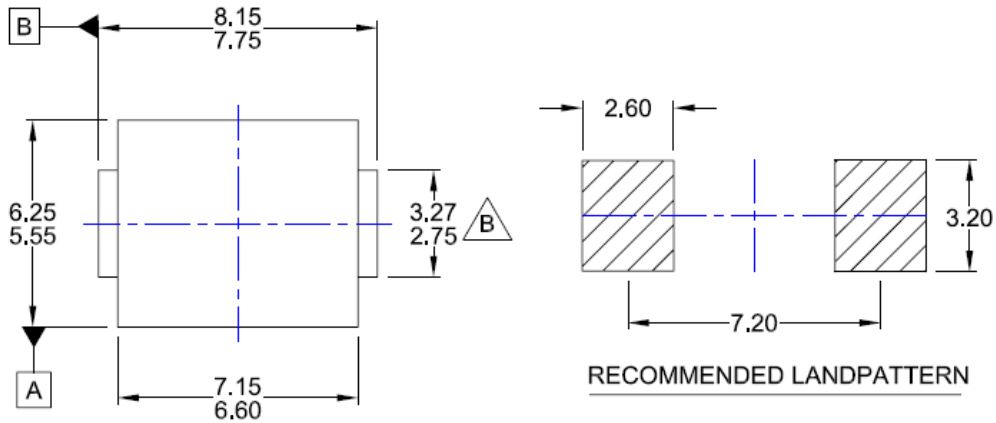


Figure 5. Total Capacitance

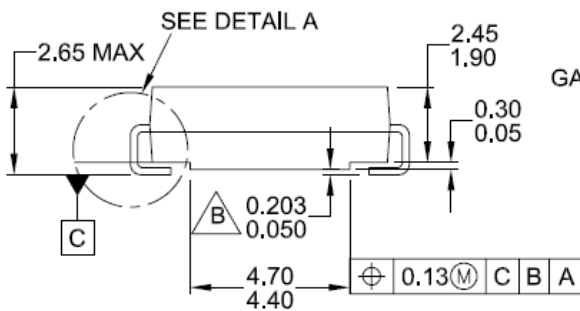
Package Dimensions

SMC/DO-214AB



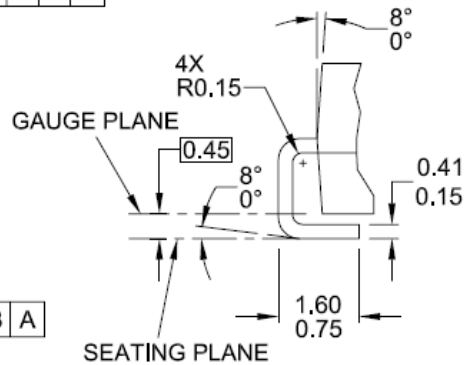
TOP VIEW

⊕ 0.13(M) C B A



SIDE VIEW

⊕ 0.13(M) C B A



DETAIL A

SCALE: 2:1

NOTES:







- A. EXCEPT WHERE NOTED CONFORMS TO JEDEC DO-214, VARIATION AB.
- B. DOES NOT COMPLY TO JEDEC STD. VALUE.
- C. ALL DIMENSIONS ARE IN MILLIMETERS.
- D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR PROTRUSIONS.
- E. DIMENSIONS AND TOLERANCING AS PER ASME Y14.5M-1994
- F. LAND PATTERN STANDARD: DIOM7957X241M
- G. DRAWING FILE NAME: DO214ABREV1

Dimensions in Millimeters



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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.
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Rev. 140