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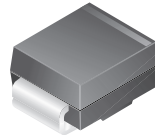
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MBRS140

MBRS140

Features

- Compact surface mount with J-bend leads (SMB)
- 1.5 Watt Power Dissipation package
- 1.0 Ampere, forward voltage less than 600 mV



SMB (D0-214AA)

Color Band Denotes Cathode
Top Mark: B140

1.0 Schottky Power Rectifier

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$I_{F(AV)}$	Average Rectified Forward Current ($T_L = 120^\circ\text{C}$)	1.0	A
I_{FSM}	Surge Non Repetitive Forward Current	40	A
$R_{\theta JL}$	Junction to Case for Thermal Resistance (Half wave, single phase, 60 Hz)	12	$^\circ\text{C/W}$
T_{stg}	Storage Temperature	-65 to +150	$^\circ\text{C}$
$T_{J\max}$	Maximum Junction Temperature	-65 to +125	$^\circ\text{C}$

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

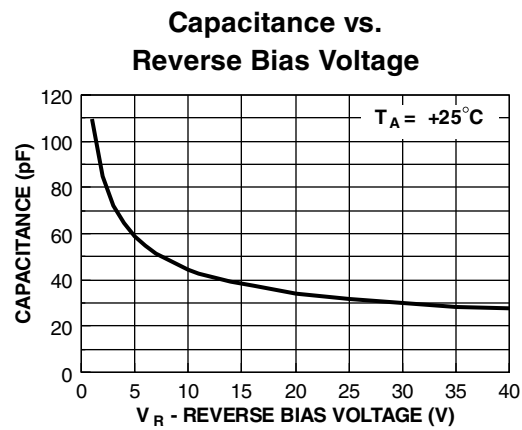
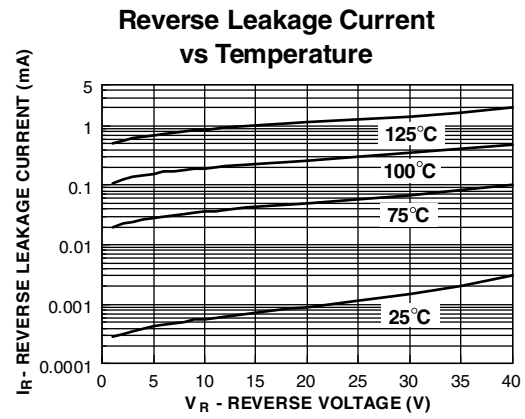
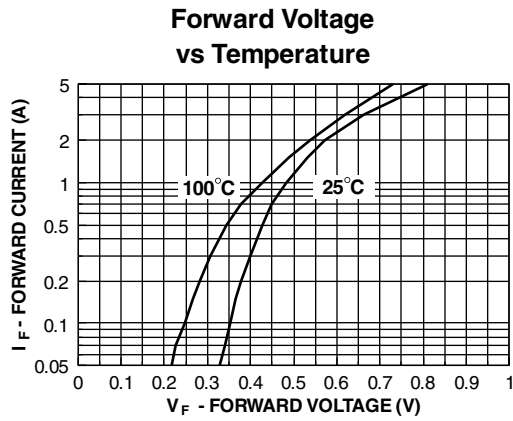
Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Repetitive Peak Reverse Voltage	40	V
I_{RM}	Maximum Reverse Leakage Current @ $V_R = 40\text{ V}, T_j = 25^\circ\text{C}$ $V_R = 40\text{ V}, T_j = 100^\circ\text{C}$	1.0 10	mA mA
V_{FM}	Maximum Forward Voltage, (Note 1) @ $I_F = 1.0\text{A}, T_j = 25^\circ\text{C}$	600	mV

Note 1: Pulse Test: Pulse width <300 μs , Duty Cycle < 2%

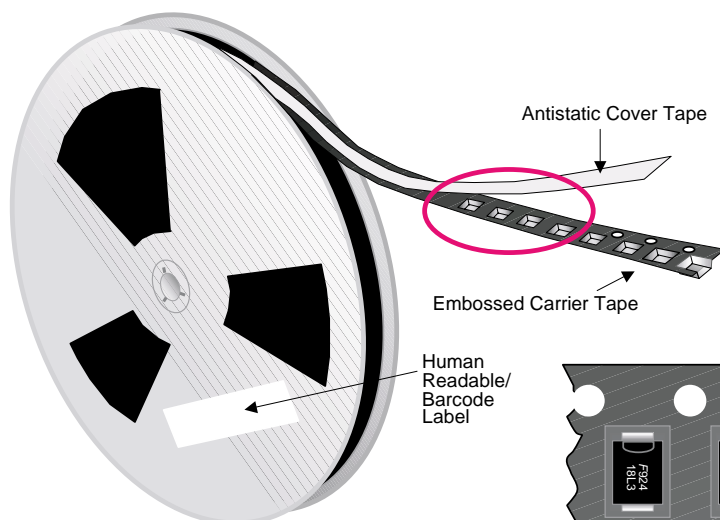
Typical Characteristics



DO-214AA(SMB) Tape and Reel Data



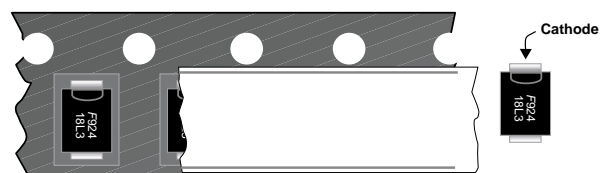
DO-214AA(SMB) Packaging Configuration: Figure 1.0



Packaging Description:

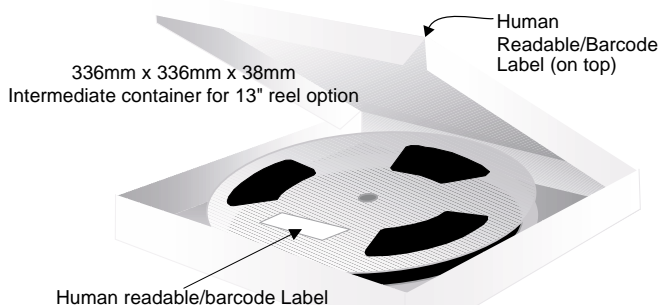
DO-214AA(SMB) parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. Alternate carrier tape is made of anti-static plastic. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 7,500 units per 13" or 330cm diameter reel. The reel comes in plastic or carton which is made of polystyrene plastic (anti-static coated) and thick white paper respectively. Further information is described in the Packaging Information table.

These full reels are individually labeled and placed inside a bleach box (illustrated in figure 1.0) made of recyclable carton paper with a Fairchild logo printing. One box contains two reels maximum. Certain number of these boxes are placed inside shipping box which comes in different sizes depending on the number of parts shipped.



DO-214AA(SMB) unit orientation

DO-214AA(SMB) Packaging Information		
Packaging Option	Under package code P5	Under package code MA
Packaging type	TNR	TNR
Qty per Reel/Tube/Bag	3,000	3,000
Reel Size (inch diameter)	13	13
Box Dimension (mm)	336x336x38	336X336X38
Max qty per Box	6,000	6,000
Weight per unit (gm)	0.093	0.093
Weight per Reel (kg)	0.705	0.705
Note/Comments	Human readable label	Barcode label



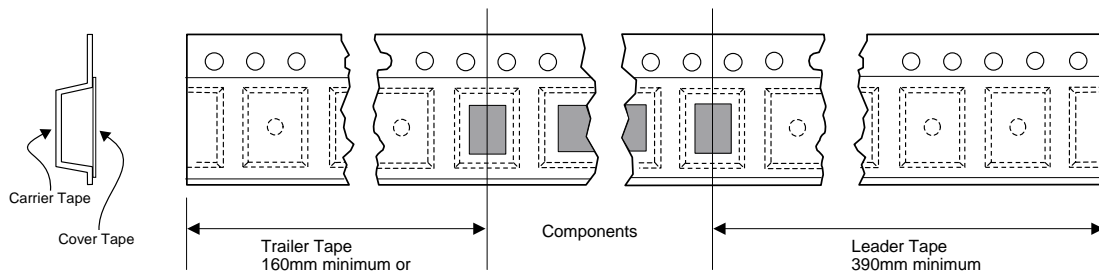
Human Readable Label sample



F63TNR Label sample

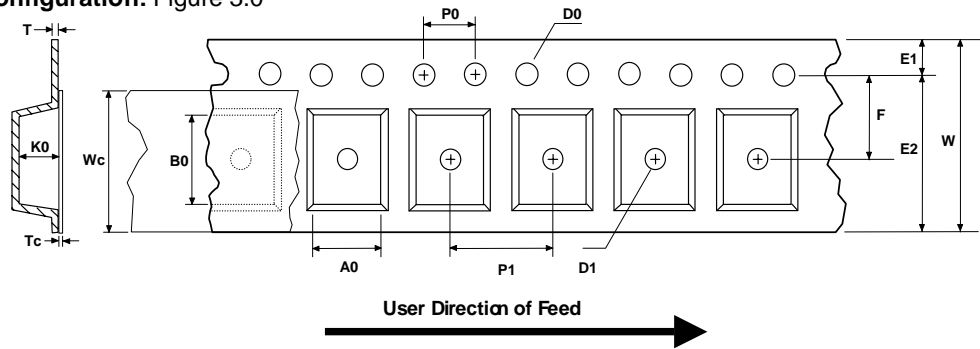


DO-214AA(SMB) Tape Leader and Trailer Configuration: Figure 2.0



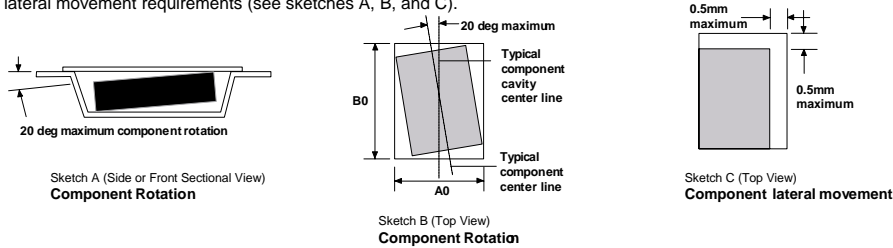
DO-214AA(SMB) Tape and Reel Data, continued

DO-214AA(SMB) Embossed Carrier Tape
Configuration: Figure 3.0

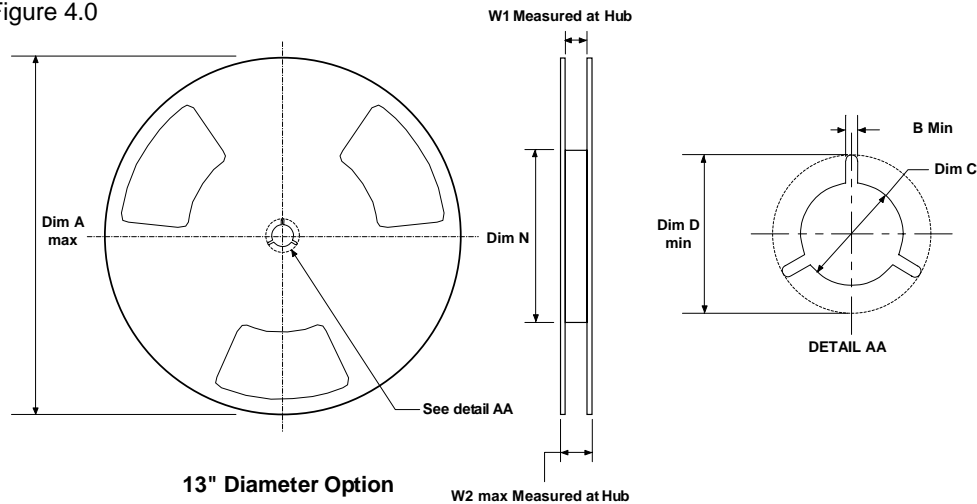


Dimensions are in millimeter														
Pkg type	A0	B0	W	D0	D1	E1	E2	F	P1	P0	K0	T	Wc	Tc
DO-214AA(SMB) (12mm)	3.79 +/-0.15	5.72 +/-0.15	12.0 +/-0.3	1.55 +/-0.05	1.125 +/-0.125	1.75 +/-0.10	10.25 min	5.5 +/-0.05	8.0 +/-0.1	4.0 +/-0.1	2.46 +/-0.30	0.25 +/-0.10	9.3 +/-0.025	0.06 +/-0.02

Notes: A0, B0, and K0 dimensions are determined with respect to the EIA/Jedec RS-481 rotational and lateral movement requirements (see sketches A, B, and C).



DO-214AA(SMB) Reel Configuration:
Figure 4.0

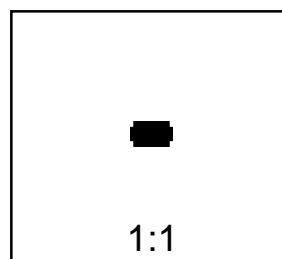
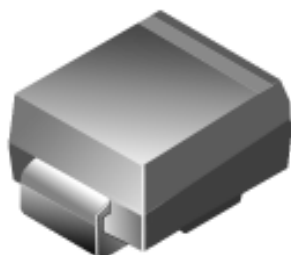


Dimensions are in inches and millimeters								
Tape Size	Reel Option	Dim A	Dim B	Dim C	Dim D	Dim N	Dim W1	Dim W2
12mm	13" Dia	13.0 330	0.059 1.5	512 +0.020/-0.008 13 +0.5/-0.2	0.795 20.2	1.97 50 min	0.488 +0.078/-0.000 12.4 +2/-0	0.567 14.4

DO-214AA(SMB) Package Dimensions



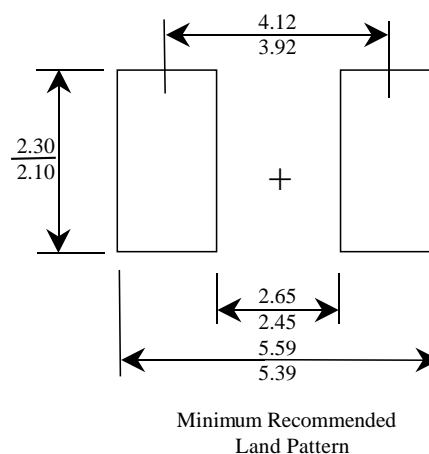
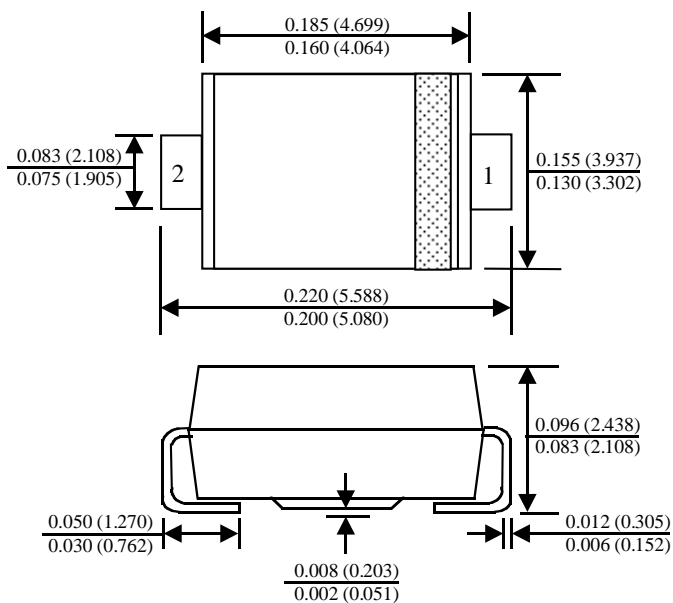
DO-214AA(SMB) (FS PKG Code P6)



Scale 1:1 on letter size paper

Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 0.093



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DOME™	ISOPLANAR™	Quiet Series™	
E ² CMOS™	MICROWIRE™	SILENT SWITCHER®	
EnSigna™	OPTOLOGIC™	SMART START™	
FACT™	OPTOPLANAR™	SuperSOT™-3	
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