

**General Description:**

Schottky Barrier Diodes make use of the rectification effect of a metal to silicon barrier. They are ideally suited for high frequency rectification in switching regulators & converters. This device offers a low forward voltage performance in a power surface mount package in applications where size and weight are critical.

**Features:**

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

**Ordering:**

- 13 inch reel (330 mm); 12 mm Tape; 3,000 units per reel.

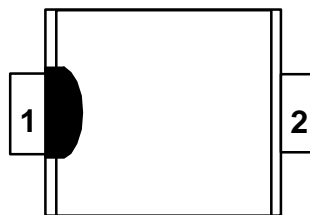
**Absolute Maximum Ratings\*** TA = 25°C unless otherwise noted

Parameter	Value	Units
Storage Temperature	-65 to +150	°C
Maximum Junction Temperature	-65 to +125	°C
Repetitive Peak Reverse Voltage ( $V_{RRM}$ )	40	V
Average Rectified Forward Current ( $T_L = 115^\circ\text{C}$ )	1.0	A
Average Rectified Forward Current ( $T_L = 100^\circ\text{C}$ )	2.0	A
Surge Non Repetitive Forward Current (Half wave, single phase, 60 Hz)	40	A
Junction to Case for Thermal Resistance ( $R_{\theta JL}$ )	12	°C/W

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

**SMB Package  
(DO-214AA)**

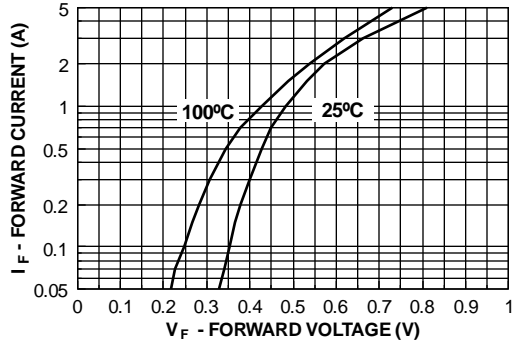
Top Mark: B140



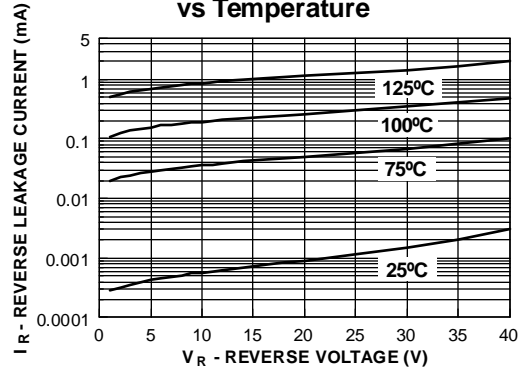
**Electrical Characteristics** TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
$I_R$	Reverse Leakage Current PW 300 us, $\leq 2\%$ Duty Cycle		1.0	mA	$V_R = 40 \text{ V}; T_j = 25^\circ\text{C}$
			10	mA	$V_R = 40 \text{ V}; T_j = 100^\circ\text{C}$
$V_F$	Forward Voltage PW 300 us, $\leq 2\%$ Duty Cycle		550	mV	$I_F = 1.0 \text{ A}; T_j = 25^\circ\text{C}$

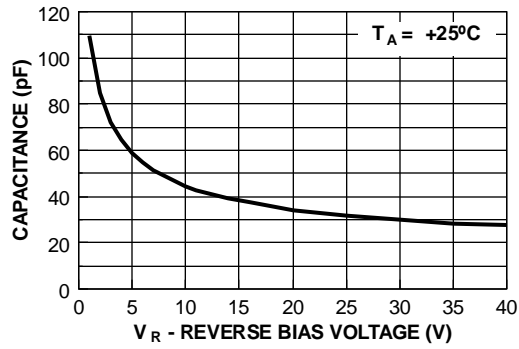
Forward Voltage vs Temperature



Reverse Leakage Current vs Temperature



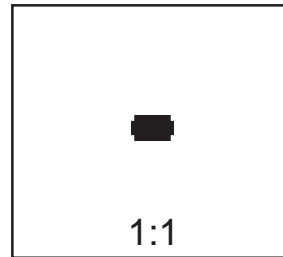
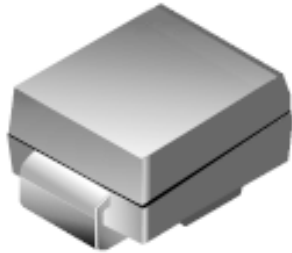
Capacitance vs. Reverse Bias Voltage



# SMB/DO-214AA Package Dimensions



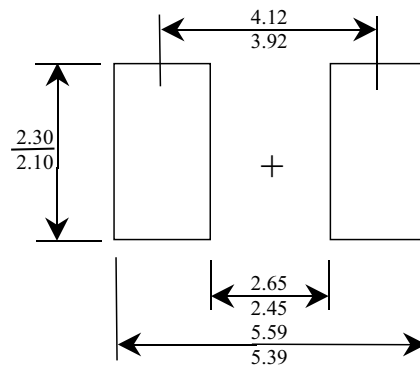
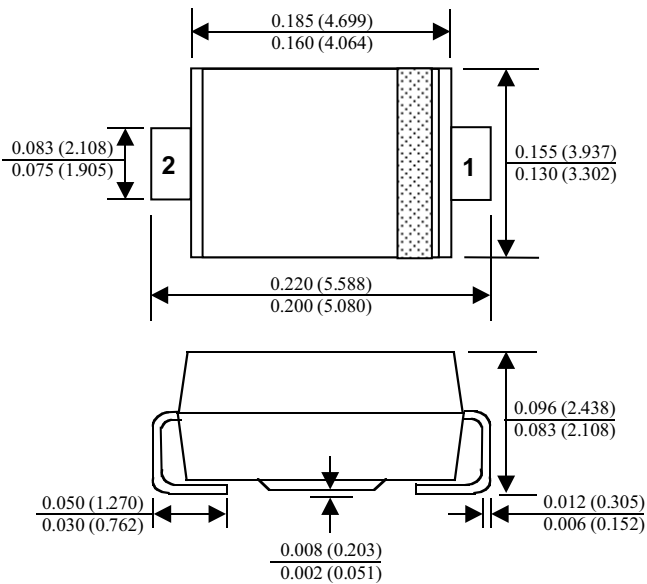
## SMB/DO-214AA (FS PKG Code P6)



Scale 1:1 on letter size paper

Dimensions shown below are in:  
inches [millimeters]

Part Weight per unit (gram): 0.093



Minimum Recommended  
Land Pattern

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CROSSVOLT™	POP™	UHC™
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FAST®	Quiet Series™	
FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	

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## PRODUCT STATUS DEFINITIONS

### Definition of Terms

Datasheet Identification	Product Status	Definition
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