

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 395 mV

Ordering:

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

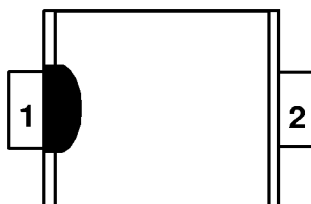
Absolute Maximum Ratings* TA = 25°C unless otherwise noted

Parameter	Value	Units
Storage Temperature	-65 to +150	°C
Maximum Junction Temperature	-65 to +125	°C
Repetitive Peak Reverse Voltage (V_{RRM})	30	V
Average Rectified Forward Current ($T_L = 120^\circ\text{C}$)	1.0	A
($T_L = 110^\circ\text{C}$)	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)**

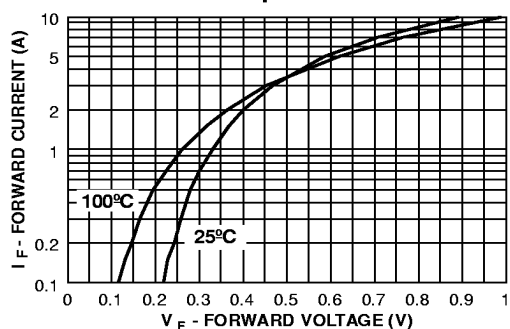
Top Mark: 1BL3



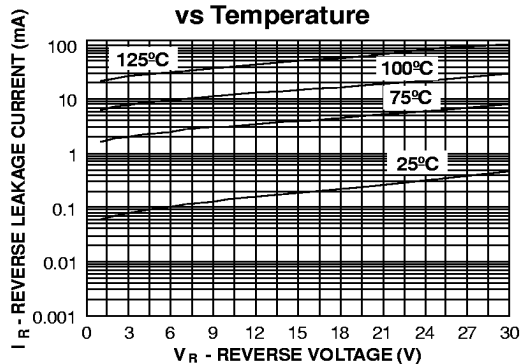
Electrical Characteristics TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
I_R	Reverse Leakage Current PW 300 us, $\leq 2\%$ Duty Cycle		1.0 10	mA mA	$V_R = 30\text{ V}; T_j = 25^\circ\text{C}$ $V_R = 30\text{ V}; T_j = 100^\circ\text{C}$
V_F	Forward Voltage PW 300 us, $\leq 2\%$ Duty Cycle		395 445	mV mV	$I_F = 1.0\text{ A}; T_j = 25^\circ\text{C}$ $I_F = 2.0\text{ A}; T_j = 25^\circ\text{C}$

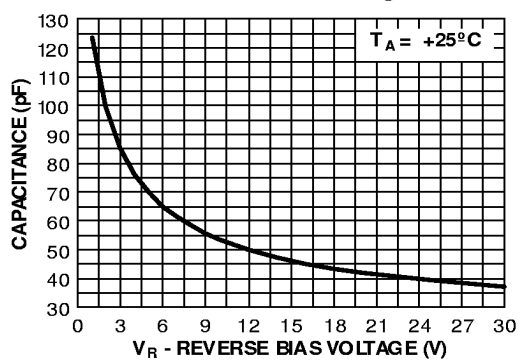
**Forward Voltage
vs Temperature**

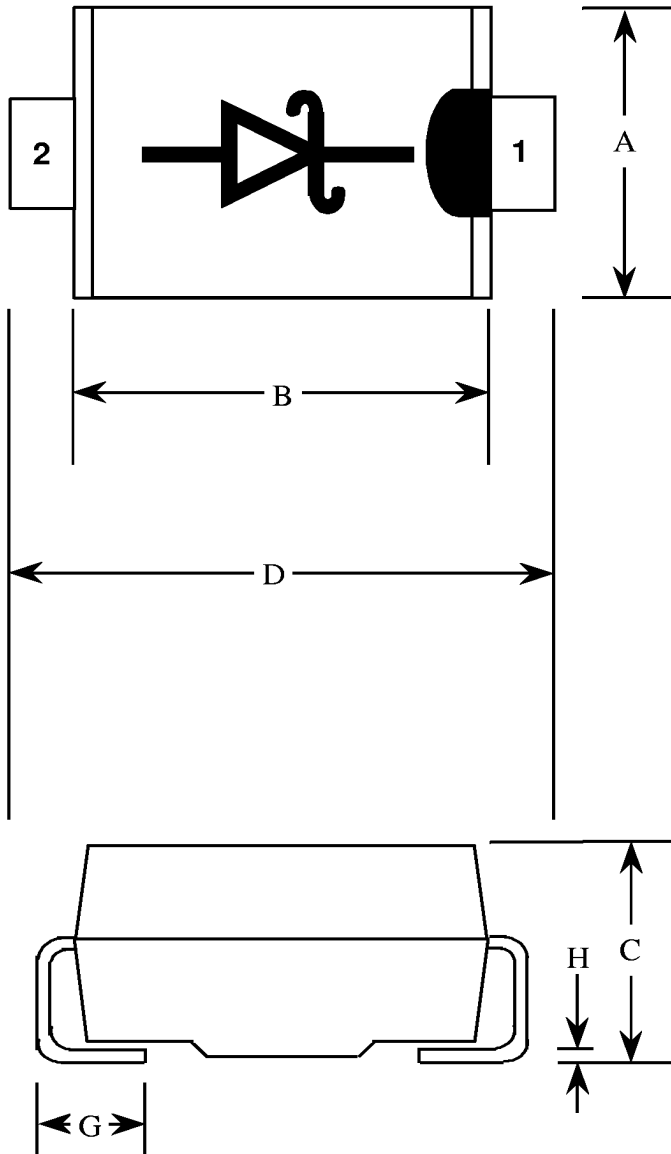


**Reverse Leakage Current
vs Temperature**

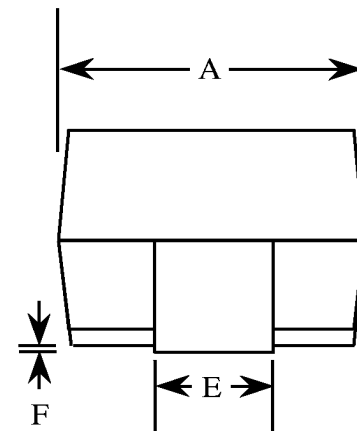


**Capacitance vs.
Reverse Bias Voltage**





Actual Size DIM	MIN (mils)	MAX (mils)	MIN (mm)	MAX (mm)
A	130	155	3.30	3.94
B	160	180	4.06	4.57
C	79	103	2.00	2.62
D	205	220	5.21	5.59
E	77	87	1.96	2.21
F	4	8	0.10	0.20
G	30	60	0.76	1.52
H	6	12	0.15	0.31



SMB PACKAGE

PACKAGE CODE = (MB)
Fairchild Semiconductor's Criteria