

**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 (SMC).
- 3.0 Watt Power Dissipation package.
- 3.0 Ampere, forward voltage less than 525 mv

**Ordering:**

- 13 inch reel (330 mm); 16 mm Tape; 3,000 units per reel.

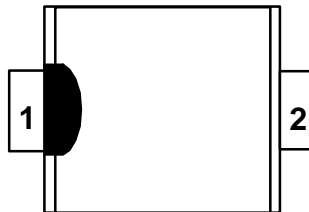
**Absolute Maximum Ratings\*** TA = 25°C unless otherwise noted

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 ( $T_L = 100^\circ\text{C}$ )	3.0	A
( $T_L = 90^\circ\text{C}$ )	4.0	A
Surge Non Repetitive Forward Current (Half wave, single phase, 60 Hz)	80	A
Junction to Case for Thermal Resistance ( $R_{\theta JL}$ )	11	°C/W

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

**SMC Package  
(DO-214AB)**

Top Mark: B34

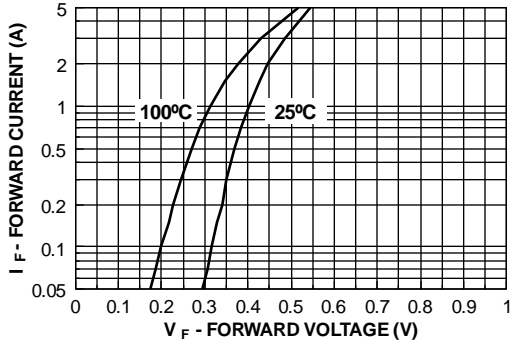


**Actual Size**

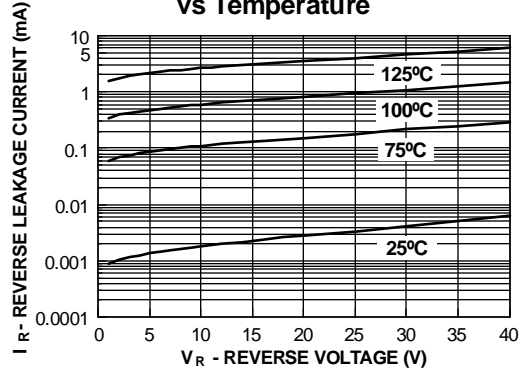
**Electrical Characteristics** TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
$I_R$	Reverse Leakage Current PW 300 us, $\leq 2\%$ Duty Cycle		2.0	mA	$V_R = 40\text{ V}; T_j = 25^\circ\text{C}$
			20	mA	$V_R = 40\text{ V}; T_j = 100^\circ\text{C}$
$V_F$	Forward Voltage PW 300 us, $\leq 2\%$ Duty Cycle		525	mV	$I_F = 3.0\text{ A}; T_j = 25^\circ\text{C}$

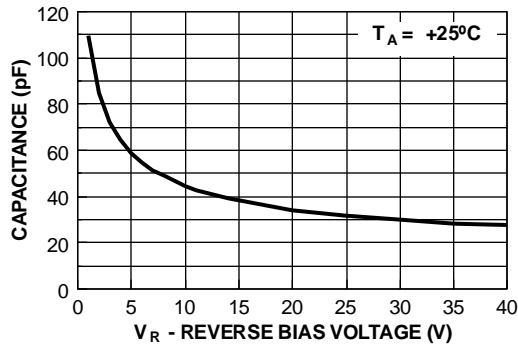
Forward Voltage vs Temperature

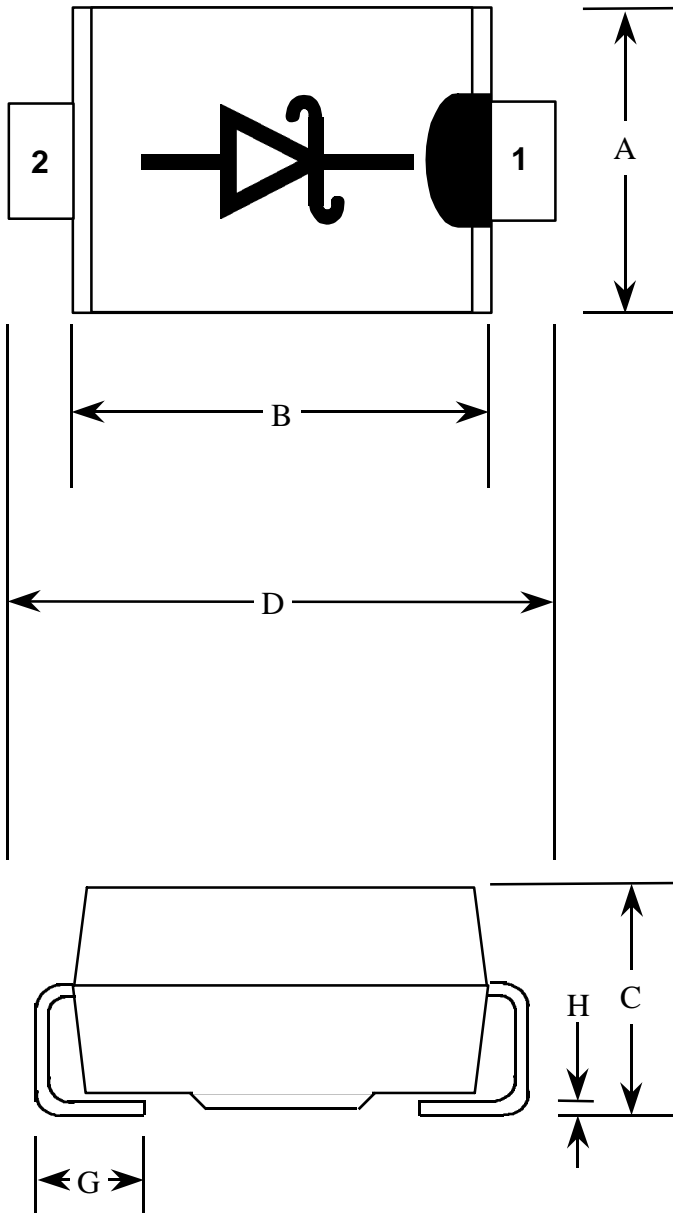


Reverse Leakage Current vs Temperature

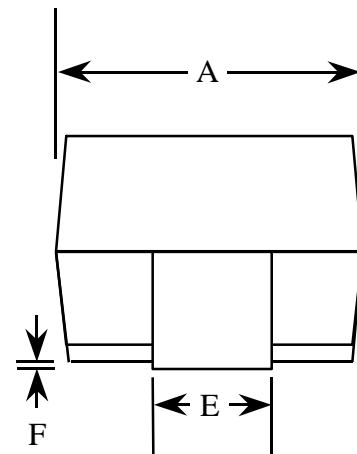


Capacitance vs. Reverse Bias Voltage





Actual Size DIM	MIN (mils)	MAX (mils)	MIN (mm)	MAX (mm)
A	220	245	5.59	6.22
B	260	280	6.60	7.11
C	79	103	2.00	2.62
D	305	320	7.75	8.13
E	115	125	2.92	3.18
F	4	8	0.10	3.18
G	30	60	0.76	1.52
H	6	12	0.15	0.31



**SMC PACKAGE**  
PACKAGE CODE = (MC)  
Fairchild Semiconductor's Criteria