

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.

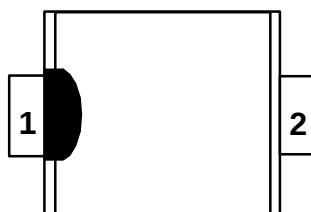
Absolute Maximum Ratings* TA = 25°C unless otherwise noted

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

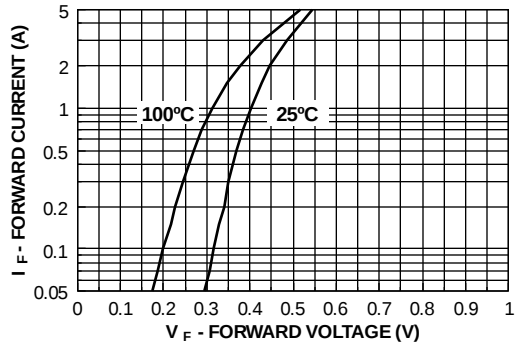


Actual Size

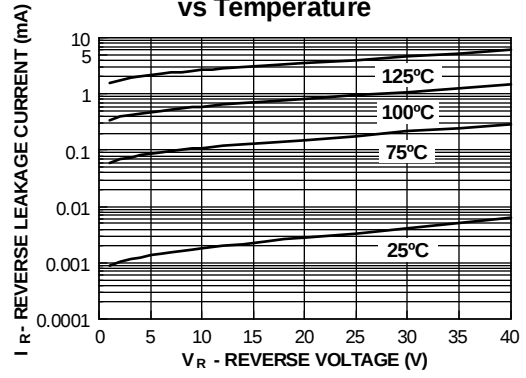
Electrical Characteristics TA = 25°C unless otherwise noted

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

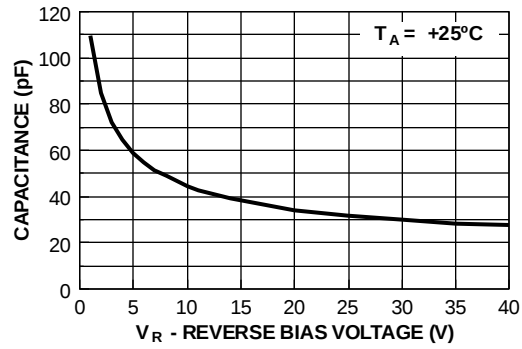
Forward Voltage
vs Temperature

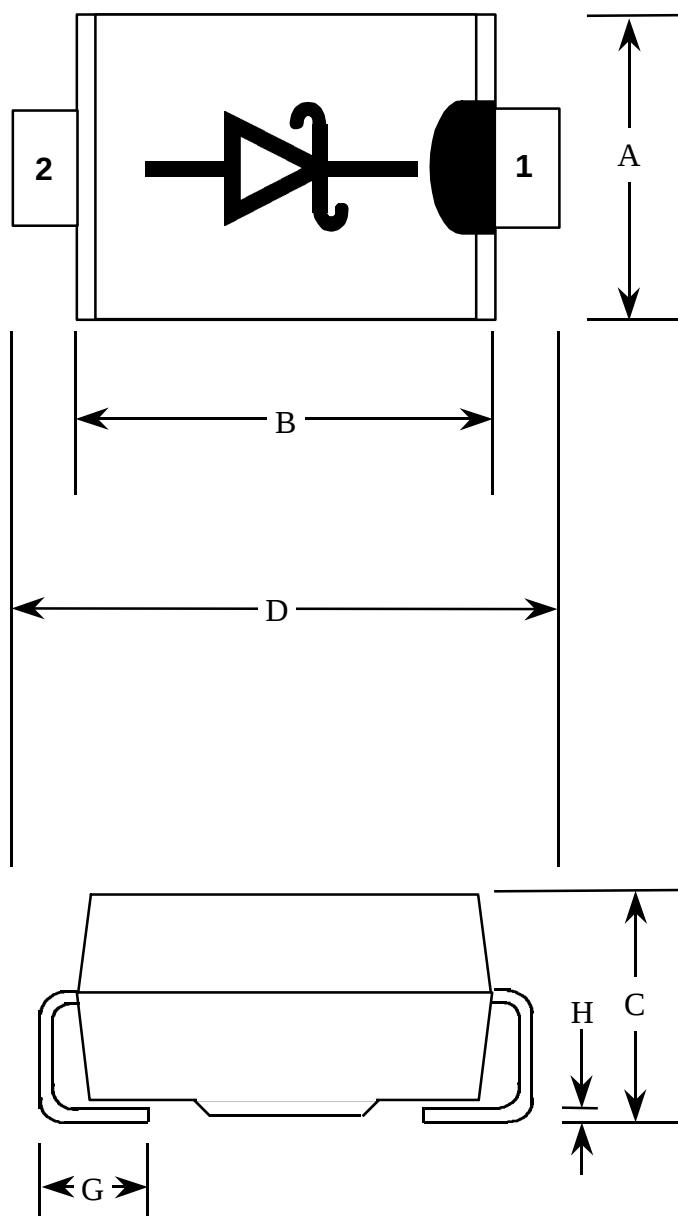


Reverse Leakage Current
vs Temperature

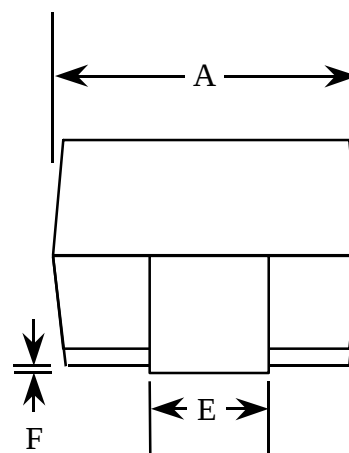


Capacitance vs.
Reverse Bias Voltage





 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