3.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Product Summary

V_{RRM} (V)	I_O(A)	$V_{F(MAX)}$ @ +25°C (V)	$I_{R(MAX)}$ @ V_{RRM} (mA)
60	3.0	0.70	0.10

Features

- Guard Ring Die Construction for Transient Protection
- Low Leakage at High Temperature
- Low Power Loss, High Efficiency
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Notes 3)**
- **Qualified to AEC-Q101 Standards for High Reliability**

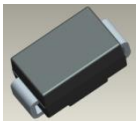
Description and Applications

B360AM is a very low leakage version of B360A. For use in low voltage, high frequency inverters, freewheeling, DC-DC converters, and polarity protection applications.

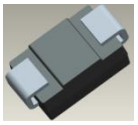
Mechanical Data

- Case: SMA
- Case Material: Molded Plastic. "Green" Molding compound. UL Flammability Classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Lead-Free Plating (Matte Tin Finish). Solderable per MIL-STD-202, Method 208 e3
- Polarity: Cathode Band
- Weight: 0.064 grams (Approximate)

SMA



Top View



Bottom View

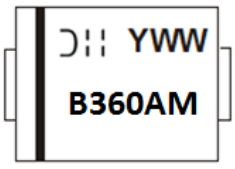
Ordering Information (Note 4)

Part Number*	Compliance	Case	Packaging
B360AM-13-F	Standard	SMA	5,000/Tape & Reel

Notes:
1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.
2. See http://www.diodes.com/quality/lead_free.html for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. For packaging details, go to our website at http://www.diodes.com/products/packages.html.

Marking Information

SMA



B360AM = Product Type Marking Code
= Manufacturers' Code Marking
YWW = Date Code Marking
Y = Last Digit of Year (ex: 14 for 2014)
WW = Week Code (01 to 53)

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	60	V
Average Rectified Output Current @ T_T = +100°C	I_O	3.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	80	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	100	°C/W
Typical Thermal Resistance, Junction to Lead (Note 5)	$R_{\theta JL}$	30	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V_F	—	0.60	0.70	V	I_F = 3.0A, T_A = +25°C
		—	0.54	—		I_F = 3.0A, T_A = +125°C
Leakage Current (Note 6)	I_R	—	0.003	0.10	mA	V_R = 60V, T_A = +25°C
		—	2.4	—		V_R = 60V, T_A = +125°C
Total Capacitance	C_T	—	130	—	pF	V_R = 4V, f = 1MHz

Notes: 5. Device mounted on FR-4 PCB, 1* 1 sq. inch, 2 oz Cu single-side with 0.1 * 0.15 sq. inch copper pad.
6. Short duration pulse test used to minimize self-heating effect.

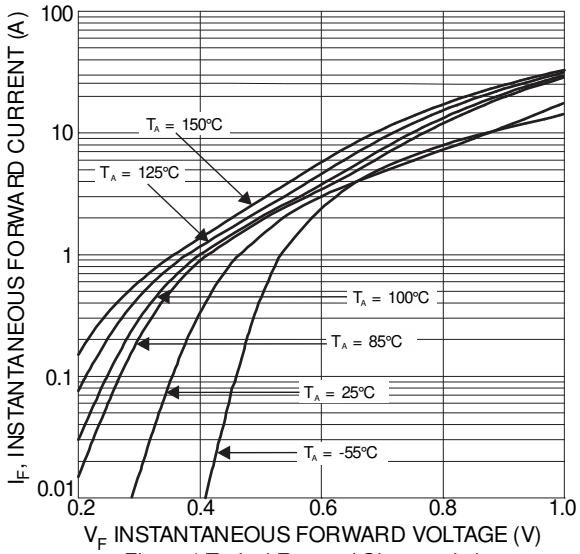


Figure 1 Typical Forward Characteristics

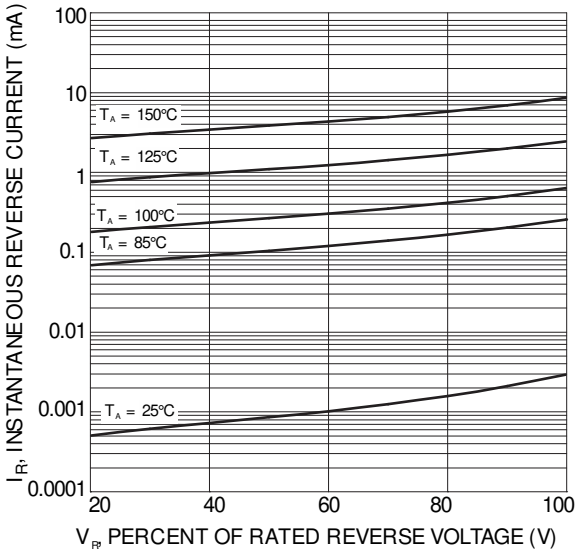


Figure 2 Typical Reverse Characteristics

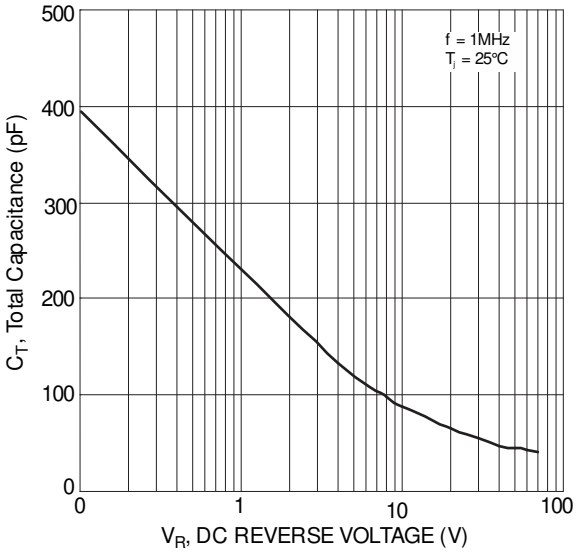


Figure 3 Total Capacitance vs. Reverse Voltage

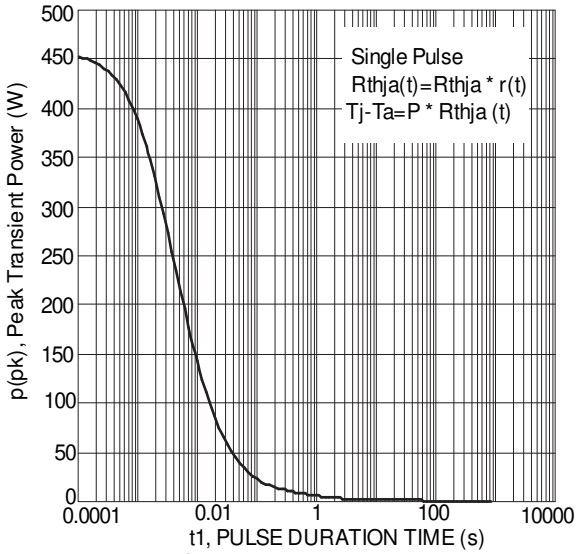


Figure 4 Single Pulse Maximum Power Dissipation

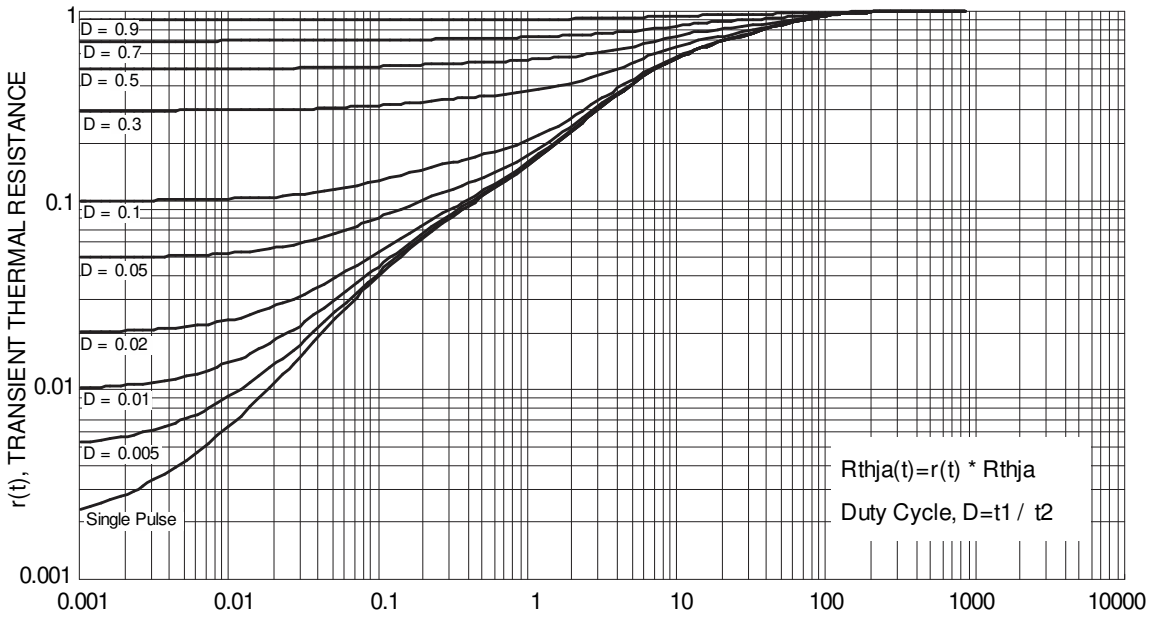
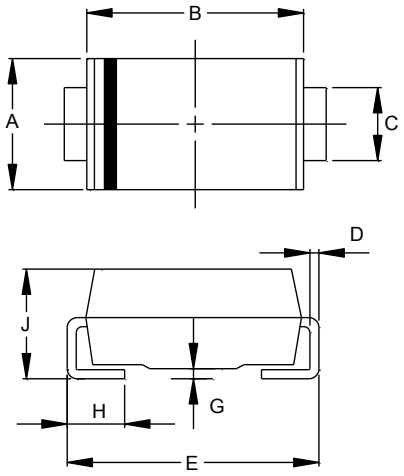


Figure 5 Transient Thermal Resistance

Package Outline Dimensions

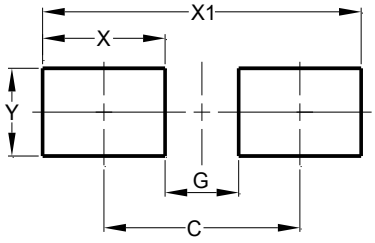
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



SMA		
Dim	**Min**	**Max**
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.05	0.20
H	0.76	1.52
J	1.96	2.40
All Dimensions in mm		

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	Value (in mm)
C	4.00
G	1.50
X	2.50
X1	6.50
Y	1.70

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