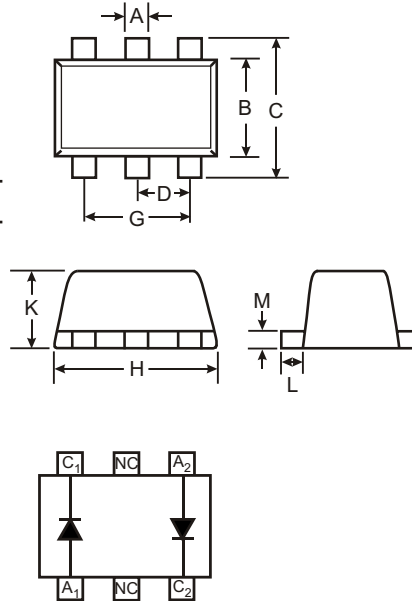


Features

- Surface Mount Package Ideally Suited for Automatic Insertion
- Very Low Leakage Current
- **Lead Free By Design/RoHS Compliant (Note 1)**

Mechanical Data

- Case: SOT-563, Molded Plastic
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020C
- Terminal Connections: See Diagram
- Terminals: Finish — Matte Tin annealed over Alloy 42 leadframe. Solderable per MIL-STD-202, Method 208
- Marking & Type Code Information: See Last Page
- Ordering Information: See Last Page
- Weight: 0.003 grams (approx.)



SOT-563			
Dim	Min	Max	Typ
A	0.15	0.30	0.25
B	1.10	1.25	1.20
C	1.55	1.70	1.60
D	0.50		
G	0.90	1.10	1.00
H	1.50	1.70	1.60
K	0.56	0.60	0.60
L	0.10	0.30	0.20
M	0.10	0.18	0.11
All Dimensions in mm			

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	85	V
RMS Reverse Voltage	V _{R(RMS)}	60	V
Forward Continuous Current (Note 2)	I _{FM}	215	mA
Repetitive Peak Forward Current	I _{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	4.0	A
@ t = 1.0µs		1.0	
@ t = 1.0ms		0.5	
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 2)	P _d	150	mW
Thermal Resistance Junction to Ambient Air (Note 2)	R _{θJA}	833	°C/W

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 3)	V _{(BR)R}	85	—	—	V	I _R = 100µA
Forward Voltage (Note 3)	V _{FM}	—	—	0.90 1.0 1.1 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Leakage Current (Note 3)	I _{RM}	—	—	5.0 80	nA nA	V _R = 75V V _R = 75V, T _J = 150°C
Total Capacitance	C _T	—	2	—	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	—	3.0	µs	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

- Note:
1. No purposefully added lead.
 2. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 3. Short duration test pulse used to minimize self-heating effect.

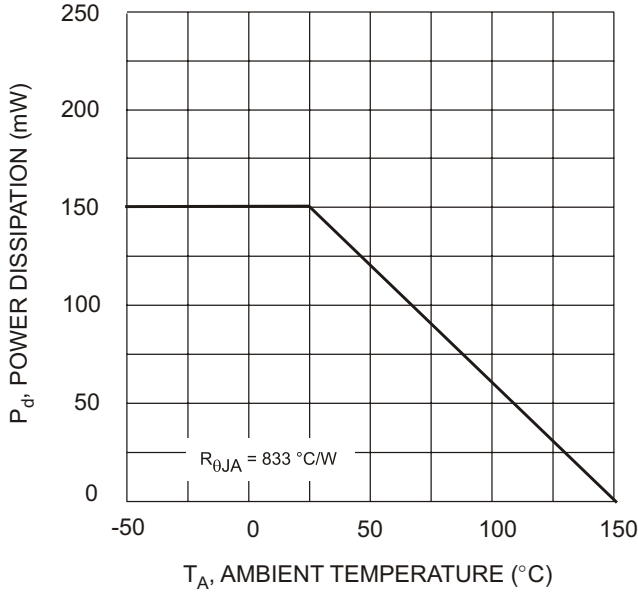


Fig. 1, Derating Curve - Total

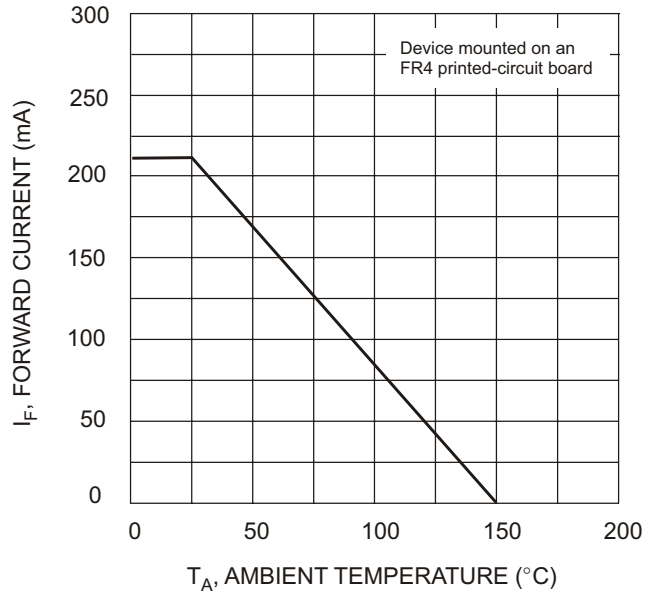


Fig. 2 Current Derating Curve

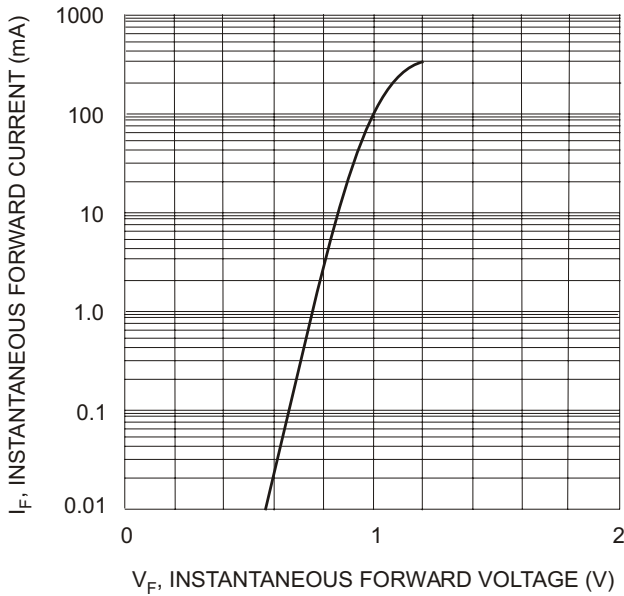


Fig. 3 Typical Forward Characteristics

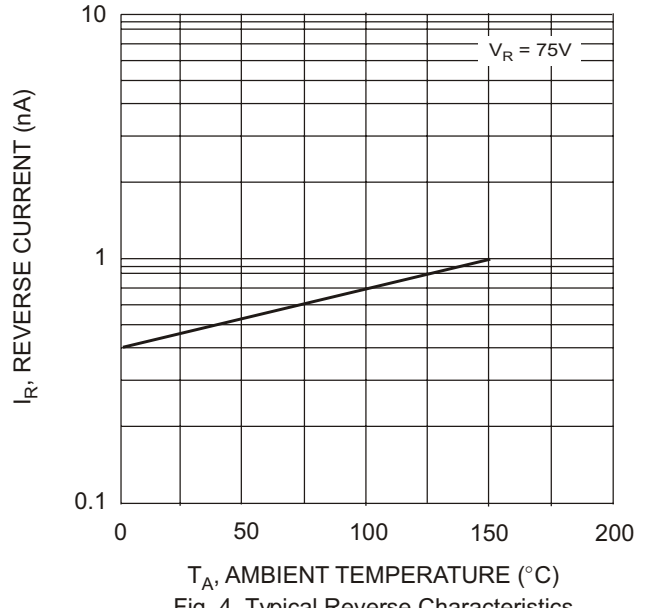


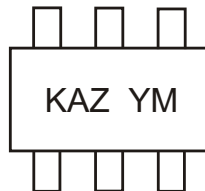
Fig. 4 Typical Reverse Characteristics

Ordering Information (Note 4)

Device	Packaging	Shipping
BAS116V-7	SOT-563	3000/Tape & Reel

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



KAZ = Product Type Marking Code (See Page 1 Diagrams)
 YM = Date Code Marking
 Y = Year (ex: R = 2004)
 M = Month (ex: 9 = September)

Date Code Key

Year	2004	2005	2006	2007	2008	2009
Code	R	S	T	U	V	W

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D