MAXIMUM RATINGS

Rating	Symbol	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
Non−repetitive Peak Reverse Voltage	V_{RSM}	100	200	300	525	800	1000	1200	V
Average Rectified Forward Current (Single Phase Resistive Load, 1/2 in. Leads, T_L = 105°C)	I_O	3.0							A
Non−repetitive Peak Surge Current (8 ms Single Half−Sine−Wave)	I_{FSM}	200 (one cycle)							A
Operating and Storage Junction Temperature Range	T_J T_{stg}	− 65 to +150 − 65 to +175							°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL CHARACTERISTICS

Characteristic	Symbol	Typ	Unit
Thermal Resistance, Junction−to−Ambient (PC Board Mount, 1/2 in. Leads)	$R_{\theta JA}$	53	°C/W

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
Forward Voltage (I_F = 3.0 A, T_A = 25°C)	v_F	−	−	1.0	V
Reverse Current (Rated DC Voltage) T_A = 25°C T_A = 100°C	I_R	 − −	 − −	 10 50	μA

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

Ratings at 25°C ambient temperature unless otherwise specified.

60 Hz resistive or inductive loads.

For capacitive load, derate current by 20%.

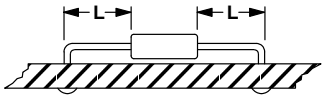
NOTE 1 — AMBIENT MOUNTING DATA

Data shown for thermal resistance junction−to−ambient ($R_{\theta JA}$) for the mountings shown is to be used as typical guideline values for preliminary engineering or in case the tie point temperature cannot be measured.

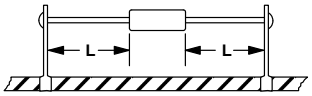
TYPICAL VALUES FOR $R_{\theta JA}$ IN STILL AIR

Mounting Method	Lead Length, L (IN)				$R_{\theta JA}$
	1/8	1/4	1/2	3/4	
1	50	51	53	55	°C/W
2	58	59	61	63	°C/W
3	28				°C/W

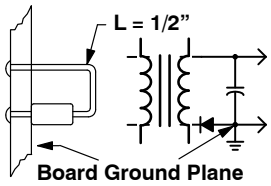
MOUNTING METHOD 1
P.C. Board Where Available Copper Surface area is small



MOUNTING METHOD 2
Vector Push−In Terminals T−28



MOUNTING METHOD 3
P.C. Board with 1−1/2” x 1−1/2” Copper Surface



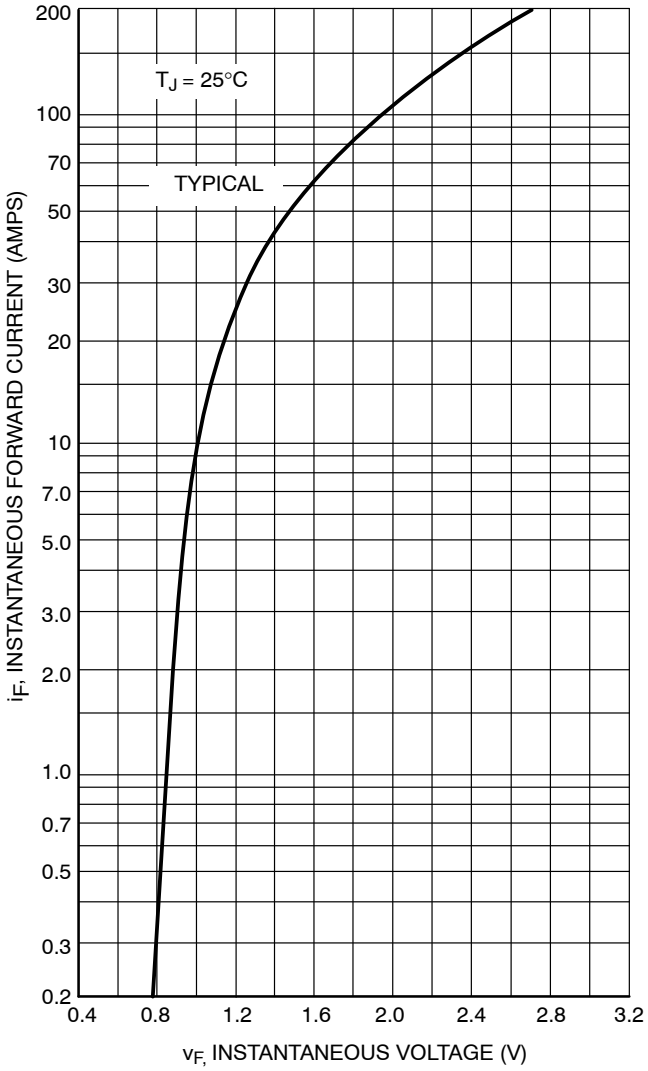


Figure 1. Forward Voltage

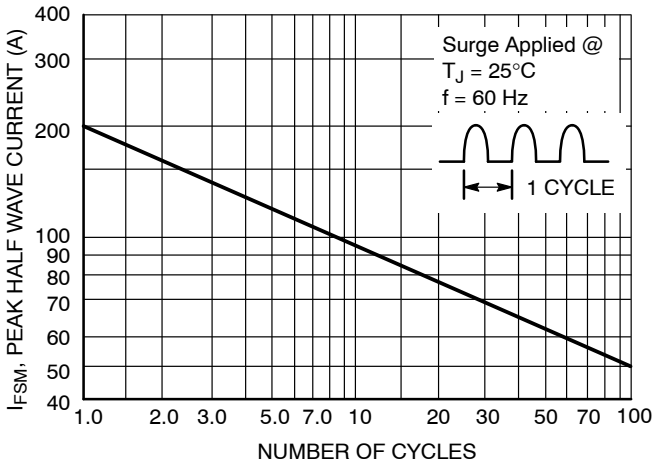


Figure 2. Maximum Nonrepetitive Surge Current

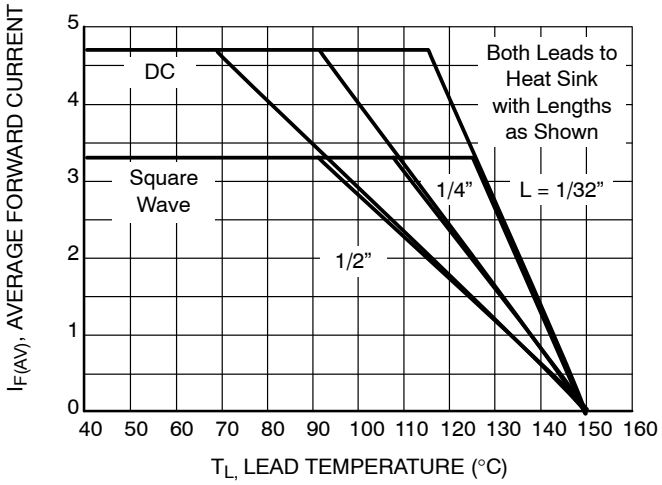


Figure 3. Maximum Current Derating, Lead, Various Lengths

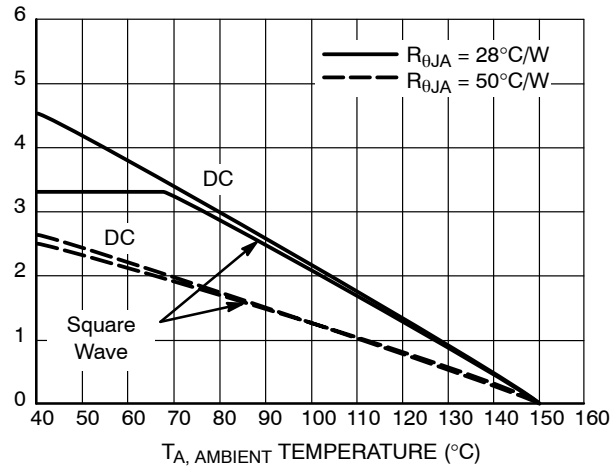


Figure 4. Maximum Current Derating, Ambient, PC Board Mounting

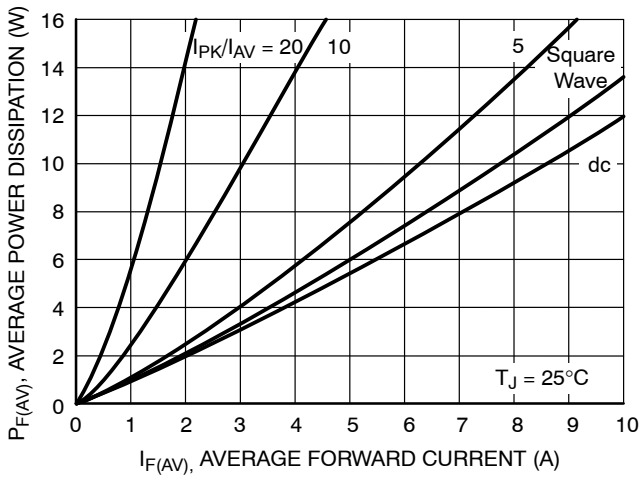


Figure 5. Forward Power Dissipation

ORDERING INFORMATION

Device	Package	Shipping†
1N5400G	Axial Lead*	500 Units/Box
1N5400RLG	Axial Lead*	1200/Tape & Reel
1N5401G	Axial Lead*	500 Units/Box
1N5401RLG	Axial Lead*	1200/Tape & Reel
1N5402G	Axial Lead*	500 Units/Box
1N5402RLG	Axial Lead*	1200/Tape & Reel
1N5404G	Axial Lead*	500 Units/Box
1N5404RLG	Axial Lead*	1200/Tape & Reel
1N5406G	Axial Lead*	500 Units/Box
1N5406RLG	Axial Lead*	1200/Tape & Reel
1N5407G	Axial Lead*	500 Units/Box
1N5407RLG	Axial Lead*	1200/Tape & Reel
1N5408G	Axial Lead*	500 Units/Box
1N5408RLG	Axial Lead*	1200/Tape & Reel

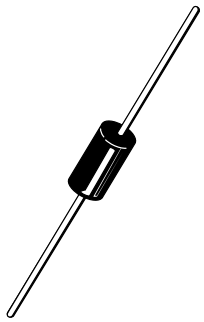
†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.
*This package is inherently Pb−Free.

MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

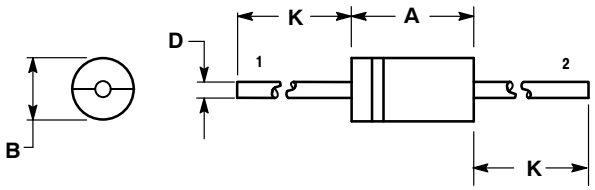
ON Semiconductor®

AXIAL LEAD
CASE 267–05
ISSUE G

DATE 06/06/2000



SCALE 1:1



NOTES:
1. DIMENSIONS AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. 267-04 OBSOLETE, NEW STANDARD 267-05.

	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	0.287	0.374	7.30	9.50
B	0.189	0.209	4.80	5.30
D	0.047	0.051	1.20	1.30
K	1.000	---	25.40	---

STYLE 1:
PIN 1. CATHODE (POLARITY BAND)
2. ANODE

STYLE 2:
NO POLARITY

DOCUMENT NUMBER:	**98ASB42170B**	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.	
DESCRIPTION:	**AXIAL LEAD**		**PAGE 1 OF 1**

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:
Email Requests to: orderlit@onsemi.com

onsemi Website: www.onsemi.com

TECHNICAL SUPPORT
North American Technical Support:
Voice Mail: 1 800−282−9855 Toll Free USA/Canada
Phone: 011 421 33 790 2910

Europe, Middle East and Africa Technical Support:
Phone: 00421 33 790 2910
For additional information, please contact your local Sales Representative

◊

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

onsemi:

1N5404 1N5400 1N5400G 1N5400RL 1N5400RLG 1N5401 1N5401G 1N5401RL 1N5401RLG 1N5402 1N5402G 1N5402RL 1N5402RLG 1N5404G 1N5404RL 1N5404RLG 1N5406 1N5406G 1N5406RL 1N5406RLG 1N5407 1N5407G 1N5407RL 1N5407RLG 1N5408 1N5408G 1N5408RL 1N5408RLG 1N5401_Q 1N5408_Q