

## 1N5817-G Thru. 1N5819-G

Reverse Voltage: 20 to 40 V

Forward Current: 1.0 A

RoHS Device

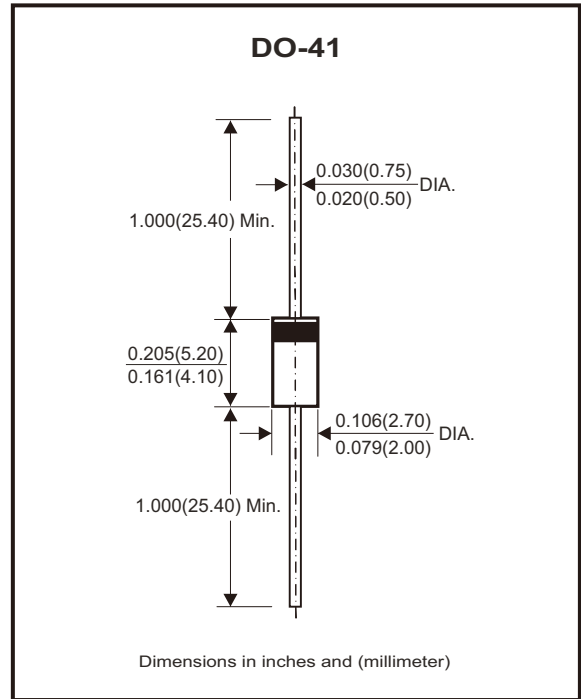


### Features

- Metal-Semiconductor junction with guard ring.
- Epitaxial construction.
- Low forward voltage drop.
- High current capability.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

### Mechanical data

- Case: JEDEC DO-41 molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode
- Mounting position: Any



### Circuit Diagram



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load derate current by 20%.

Parameter	Symbol	1N5817-G	1N5818-G	1N5819-G	Unit
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	V
Maximum average forward rectified current @ $T_A=75^\circ C$	$I_{(AV)}$	1.0			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	25			A
Maximum forward voltage at 1.0A DC	$V_F$	0.450	0.550	0.600	V
Maximum forward voltage at 3.0A DC	$V_F$	0.750	0.875	0.900	V
Maximum DC reverse current at rated DC blocking voltage	@ $T_J=25^\circ C$	1.0			mA
	@ $T_J=100^\circ C$	10			
Typical junction capacitance (Note 1)	$C_J$	110			pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	80			$^\circ C/W$
Operating temperature range	$T_J$	-55 to +150			$^\circ C$
Storage temperature range	$T_{STG}$	-55 to +150			$^\circ C$

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Thermal resistance junction to ambient.

## Rating and Characteristic Curves (1N5817-G Thru.1N5819-G)

Fig.1 - Forward Current Derating Curve

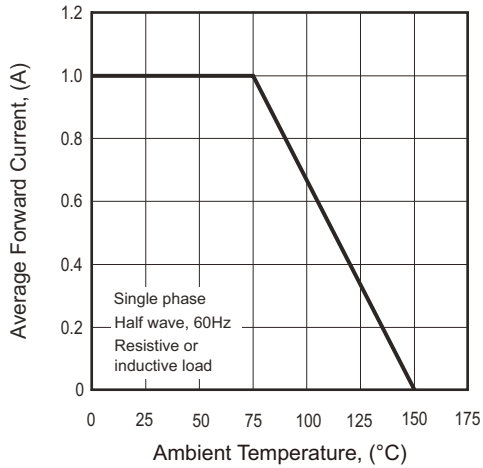


Fig.2 - Maximum Non-Repetitive Surge Current

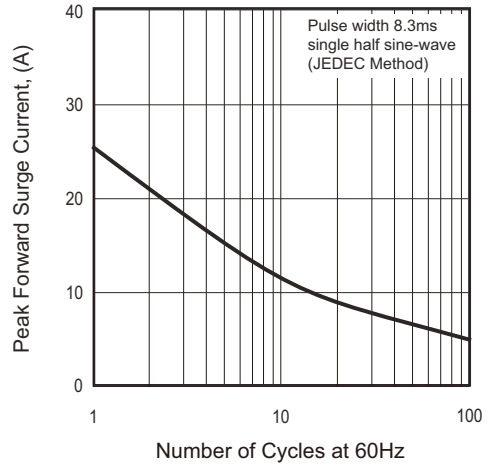


Fig.3 - Typical Junction Capacitance

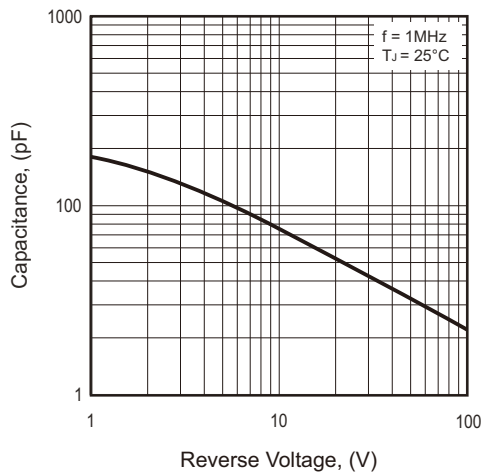
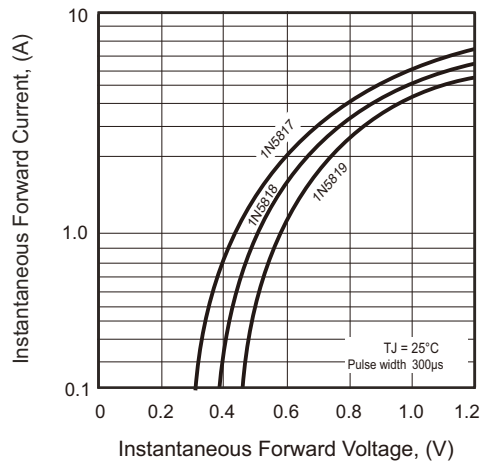
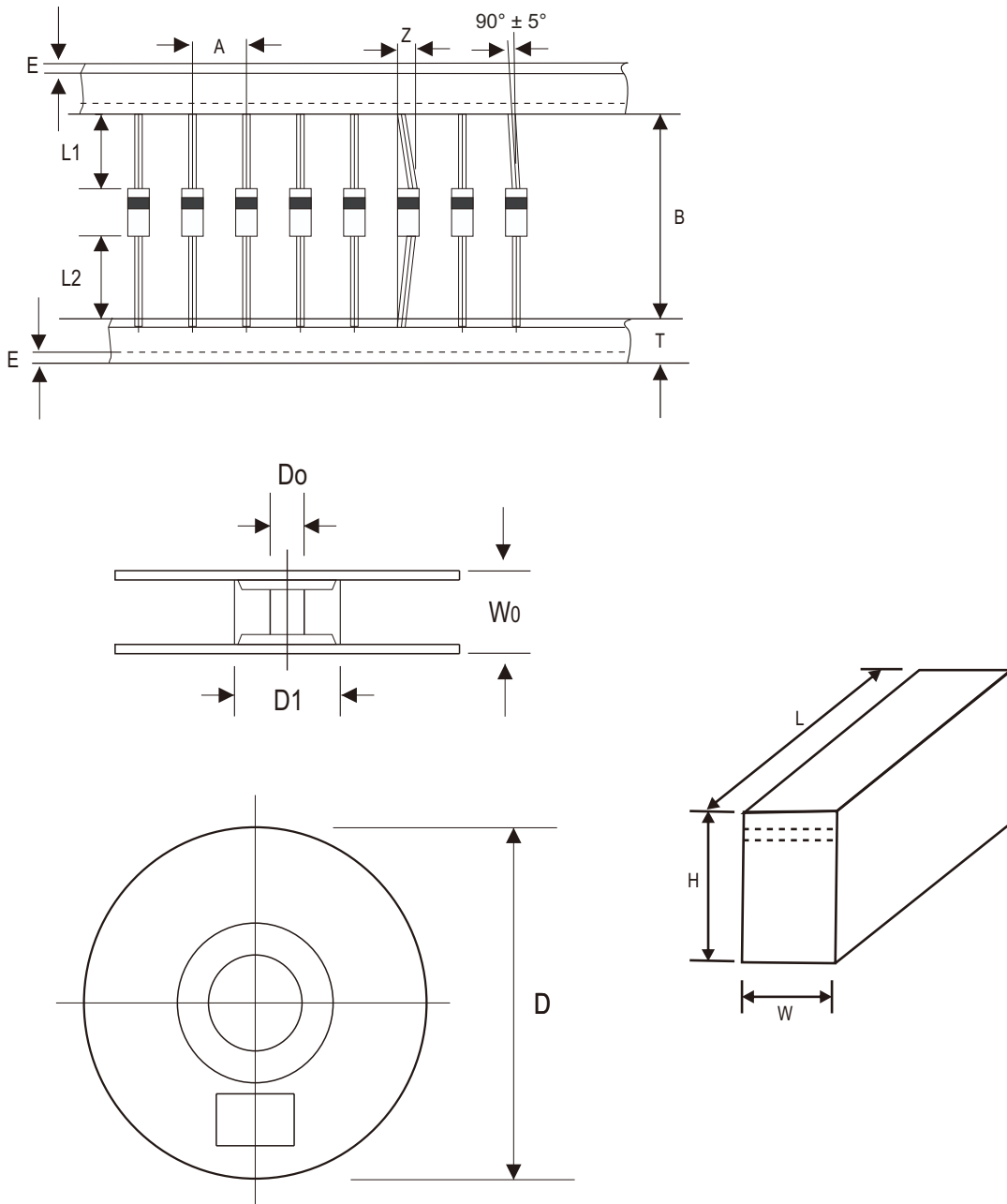


Fig.4 - Typical Forward Characteristics



## Taping Specification For Axial Lead Diodes



DO-41	SYMBOL	A	B	Z	T	E	[L1-L2]
	(mm)	$5.00 \pm 0.50$	$52.40 + 1.50$ $- 0.40$	1.20 (max)	$6.00 \pm 0.40$	0.80 (max)	1.00 (max)
	(inch)	$0.197 \pm 0.020$	$2.063 + 0.059$ $- 0.016$	0.047 (max)	$0.236 \pm 0.016$	0.031 (max)	0.039 (max)

DO-41	SYMBOL	D1	D0	D	W0	L	W	H
	(mm)	$85.70 \pm 0.30$	$16.60 \pm 0.40$	330.00	$79.00 \pm 1.00$	$255.00 \pm 5.00$	$75.00 \pm 5.00$	$150.00 \pm 5.00$
	(inch)	$3.374 \pm 0.012$	$0.654 \pm 0.016$	12.992	$3.110 \pm 0.039$	$10.039 \pm 0.197$	$2.953 \pm 0.197$	$5.906 \pm 0.197$

Company reserves the right to improve product design, functions and reliability without notice.

REV:B

## Marking Code

Part Number	Marking code	Packaging
1N5817T-G	1N5817	Reel
1N5818T-G	1N5818	Reel
1N5819T-G	1N5819	Reel
1N5817A-G	1N5817	Ammo
1N5818A-G	1N5818	Ammo
1N5819A-G	1N5819	Ammo
1N5817B-G	1N5817	Bulk
1N5818B-G	1N5818	Bulk
1N5819B-G	1N5819	Bulk



Note:

1) Suffix code after part number to specify packaging item .

**XX = Product type marking code**

Packaging	Code
REEL PACK	T
AMMO PACK	A
BULK PACK	B

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-41	5,000	13

Case Type	AMMO PACK	
	BOX ( pcs )	
DO-41	5,000	

Case Type	BULK PACK	
	BOX ( pcs )	
DO-41	1,000	

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