

1N5817-G Thru. 1N5819-G

Reverse Voltage: 20 to 40 V

Forward Current: 1.0 A

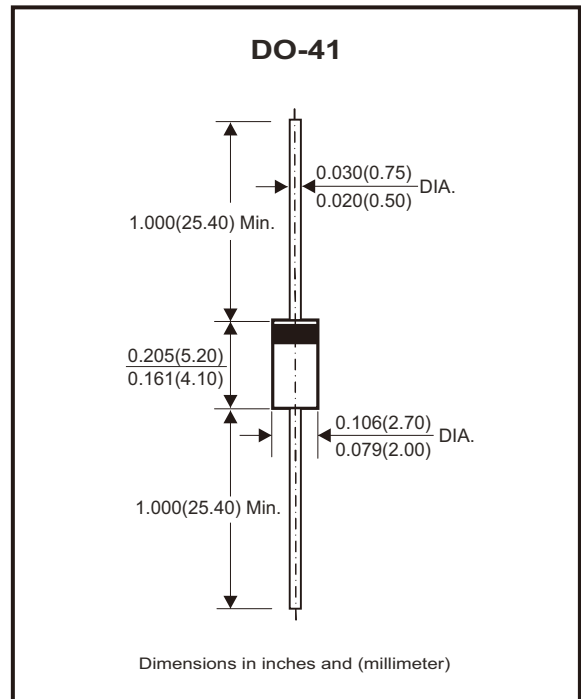
RoHS Device

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°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°C	I _R	1.0			mA
	@T _J =100°C		10			
Typical junction capacitance (Note 1)		C _J	110			pF
Typical thermal resistance (Note 2)		R _{θJA}	80			°C/W
Operating temperature range		T _J	-55 to +150			°C
Storage temperature range		T _{STG}	-55 to +150			°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

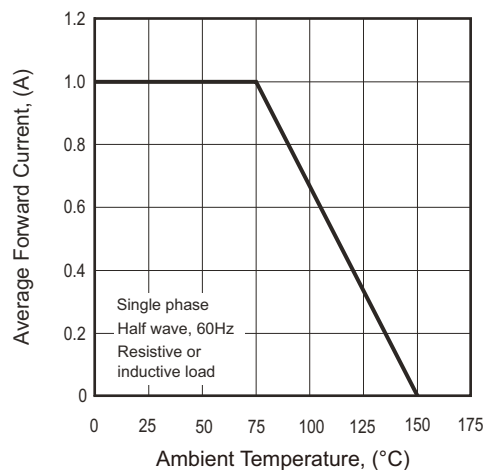


Fig.2 - Maximum Non-Repetitive Surge Current

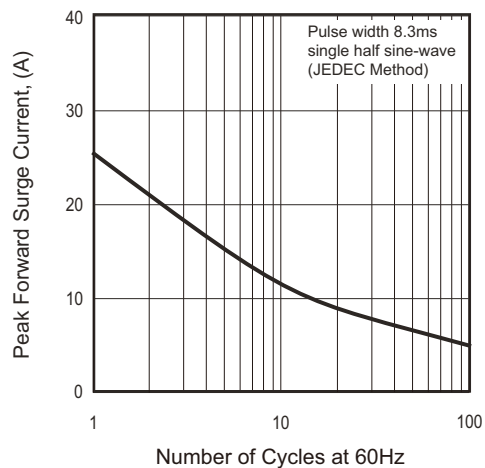


Fig.3 - Typical Junction Capacitance

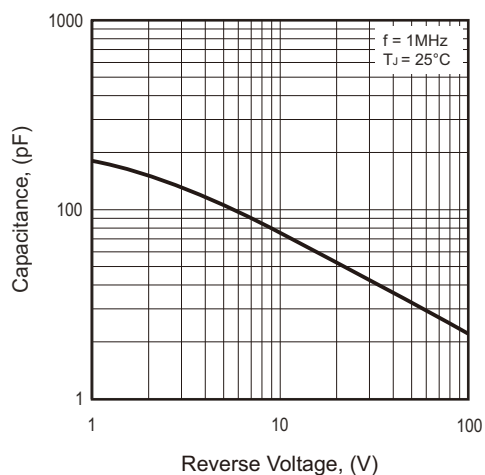
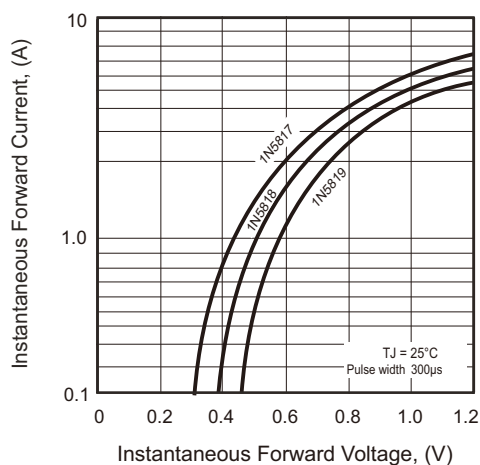
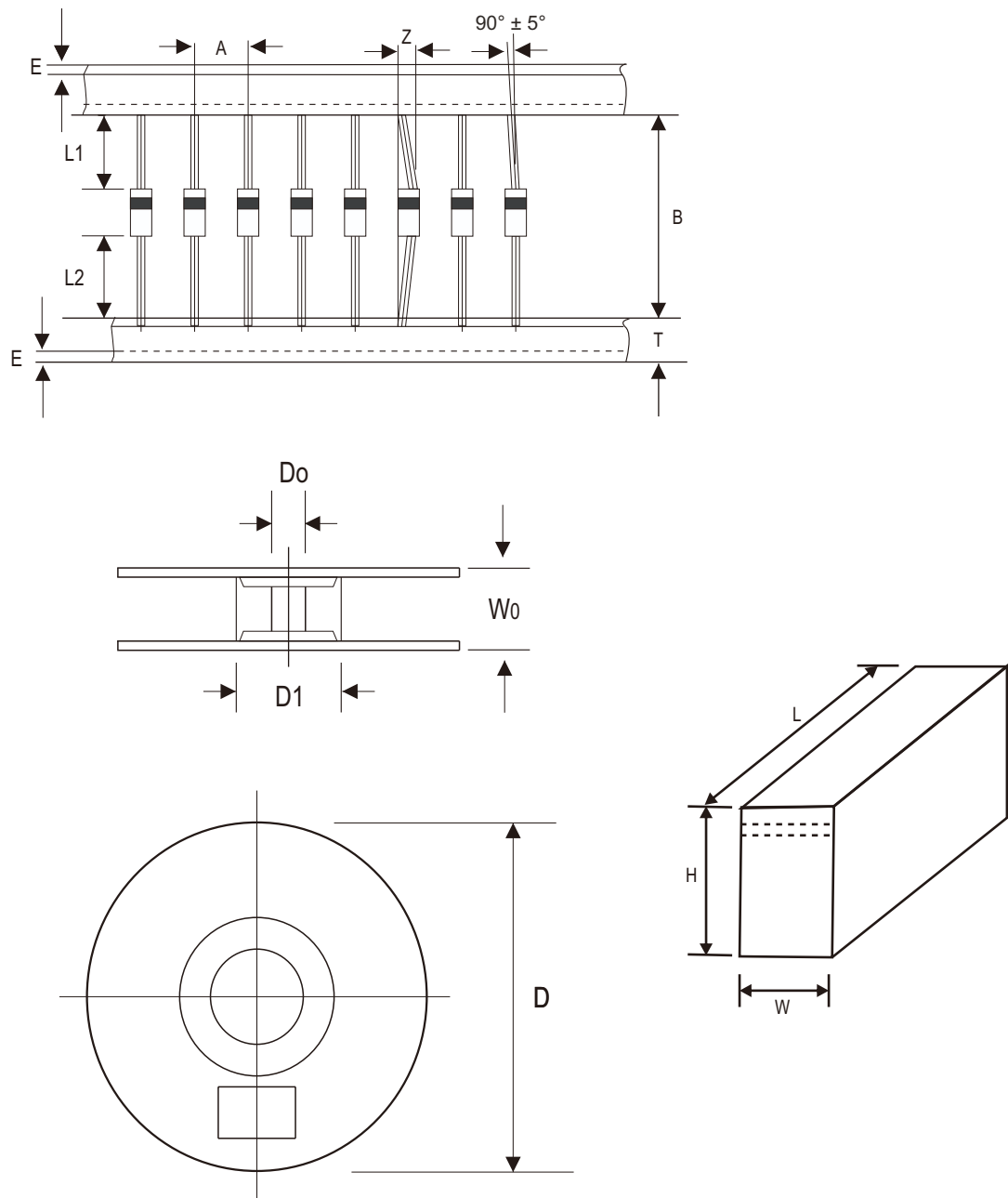


Fig.4 - Typical Forward Characteristics



Taping Specification For Axial Lead Diodes



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

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

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

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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REV:B