

1N5817-G Thru. 1N5819-G

Reverse Voltage: 20 to 40 V

Forward Current: 1.0 A

RoHS Device

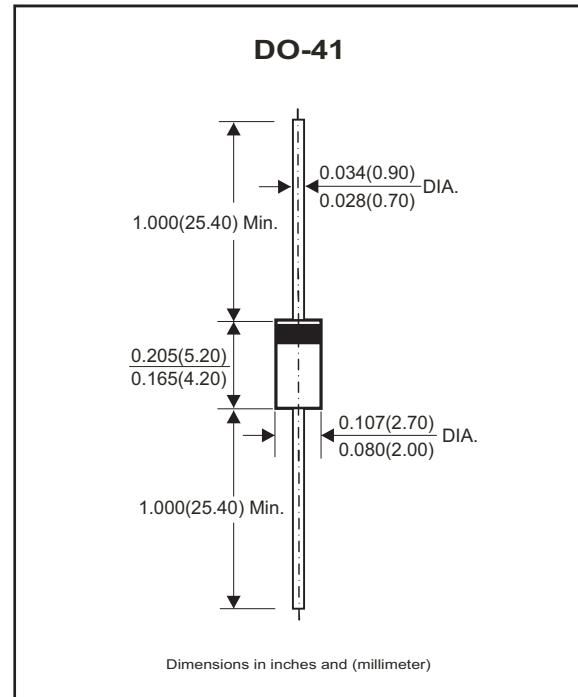


Features

- 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
- Weight: 0.012 once, 0.34 grams



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 @ $T_A=75^\circ\text{C}$	$I_{(AV)}$	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	@ $T_J=25^\circ\text{C}$	1.0			mA
	@ $T_J=100^\circ\text{C}$	10			
Typical junction capacitance (Note 1)	C_J	110			pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	80			$^\circ\text{C/W}$
Operating temperature range	T_J	-55 to +150			$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150			$^\circ\text{C}$

NOTES:

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

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

REV:A

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

Fig.1 - Forward Current Derating Curve

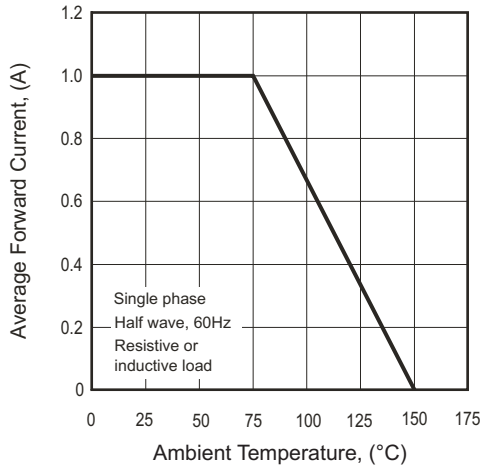


Fig.2 - Maximum Non-Repetitive Surge Current

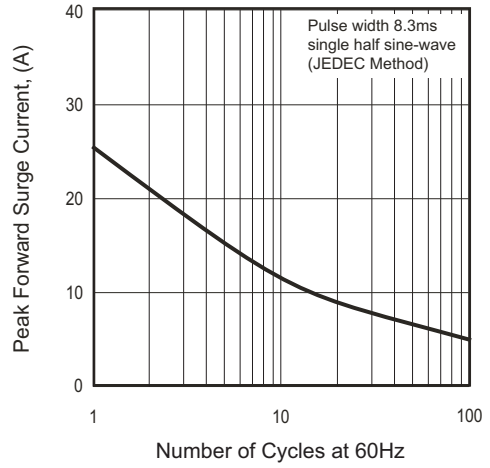


Fig.3 - Typical Junction Capacitance

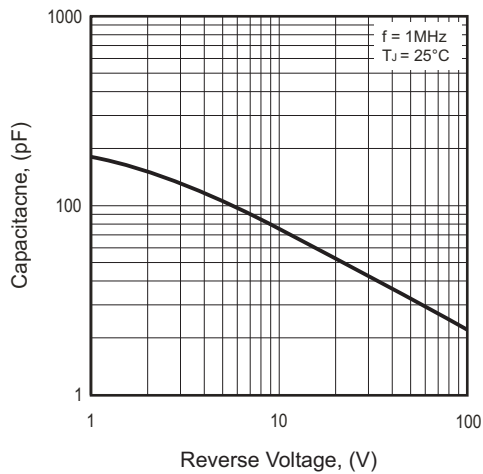
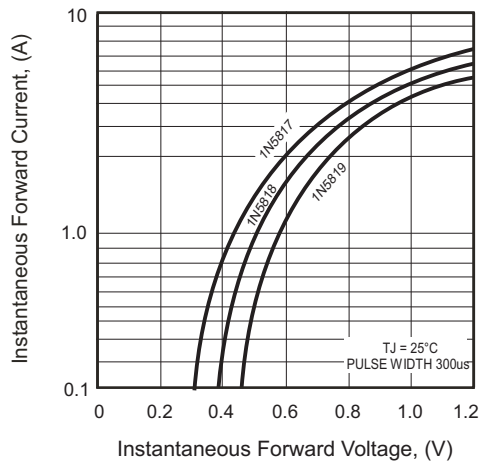


Fig.4 - Typical Forward Characteristics



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)	CARTON (pcs)
DO-41	5,000	50,000

Case Type	BULK PACK	
	BOX (pcs)	CARTON (pcs)
DO-41	1,000	50,000