

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

Reverse Voltage: 20 to 40 V

Forward Current: 1.0 A

RoHS Device

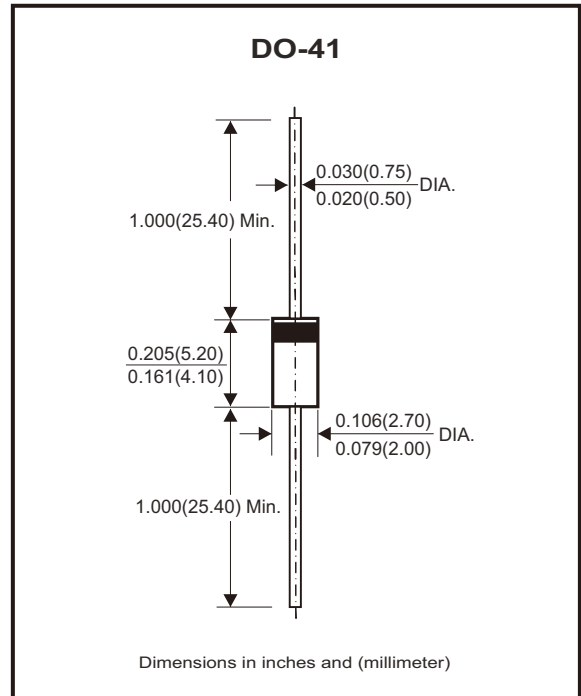


### Features

- 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 @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	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.

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

Fig.1 - Forward Current Derating Curve

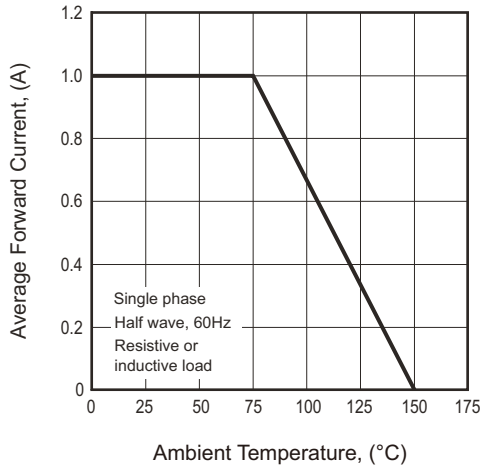


Fig.2 - Maximum Non-Repetitive Surge Current

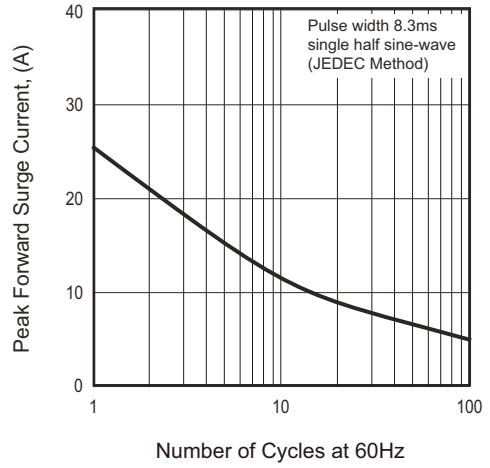


Fig.3 - Typical Junction Capacitance

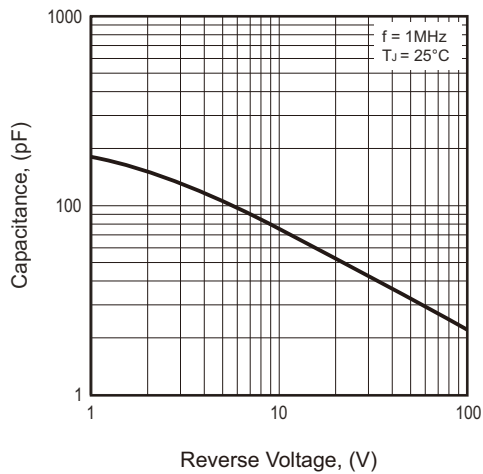
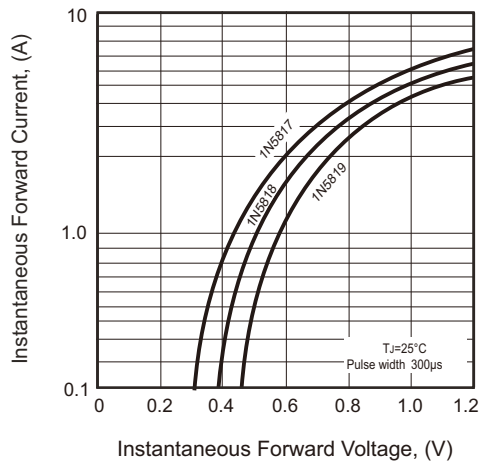


Fig.4 - Typical Forward Characteristics



## Marking Code

Part Number	Marking code
1N5817-G	1N5817
1N5818-G	1N5818
1N5819-G	1N5819



XX = Product type marking code

## Standard Packaging

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