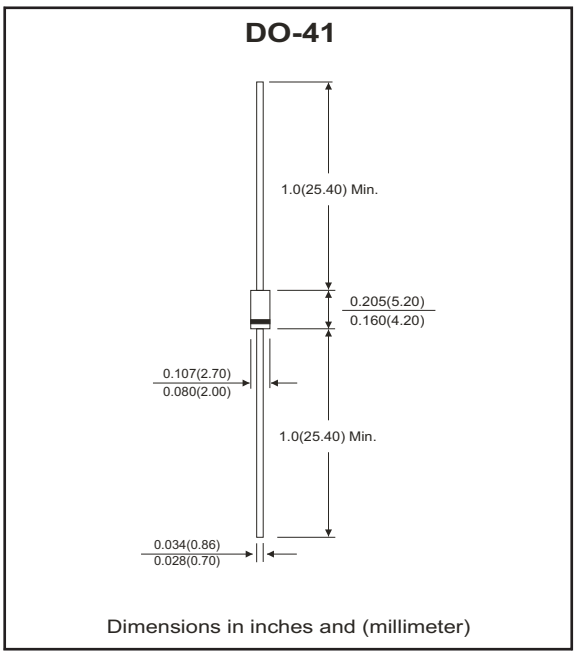
A1N4007G-G

Voltage: 1000 V

Current: 1.0 A

RoHS Device



Features

- Low drop down voltage
- High current capability
- Low reverse leakage.
- High forward surge current capability.
- Glass passivated chip junction.
- Comply with AEC-Q101

Mechanical data

- Case: JEDEC DO-41 molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-750 method 2026.
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.34 grams(approx.)

Circuit diagram

Maximum Ratings and Electrical Characteristics (at Ta=25°C unless otherwise noted)

Ratings 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	Conditions	Symbol	Value	Unit
Maximum recurrent peak reverse voltage		V_{RRM}	1000	V
Maximum RMS voltage		V_{RMS}	700	V
Maximum DC blocking voltage		V_{DC}	1000	V
Maximum average forward rectified current	see figure 1	$I_{(AV)}$	1	A
Peak forward surge current	8.3mS single half sine-wave superimposed on rated load (JEDEC Method) TL=110°C	I_{FSM}	30	A
Maximum instantaneous forward voltage	@I_F = 1A	V_F	1.1	V
Maximum DC reverse current at rated DC blocking voltage	T_A = 25°C	I_R	5	μA
	T_A = 125°C		50	
Typical junction Capacitance	V_R = 4V, f = 1MHz	C_J	10	pF
Typical thermal resistance	Junction to ambient	$R_{\Theta JA}$	45	°C/W
Operating junction temperature range		T_J	-55 ~ +125	°C
Storage temperature range		T_{STG}	-55 ~ +150	°C

Rating and Characteristic Curves (A1N4007G-G)

Fig.1 - Forward Current Derating Curve

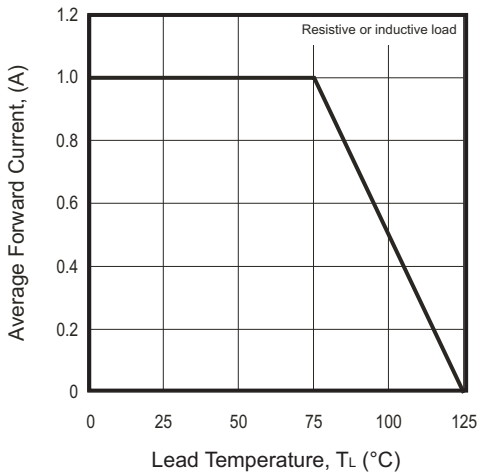


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

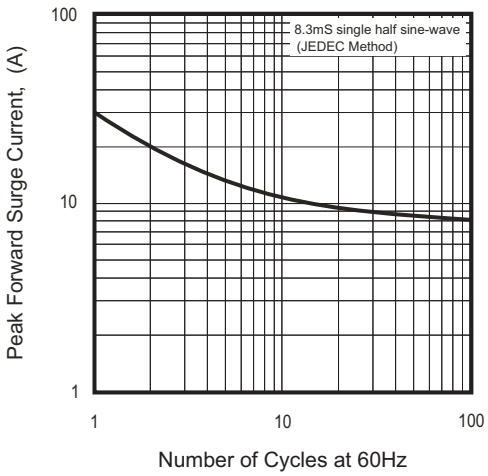


Fig.3 - Typical Instantaneous Forward Characteristics

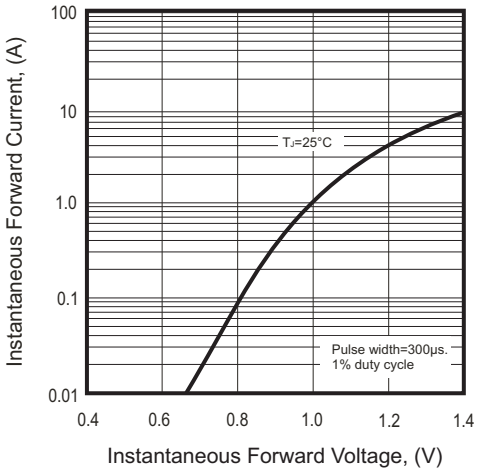


Fig.4 - Typical Reverse Characteristics

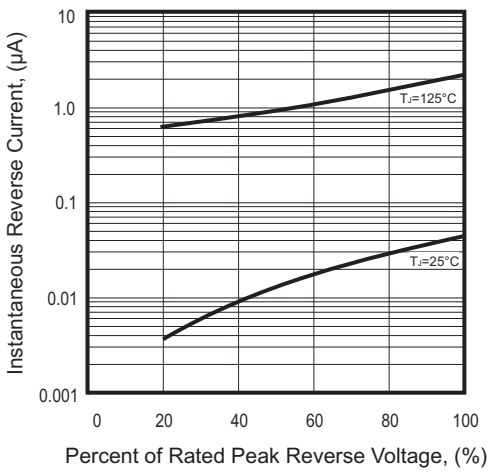
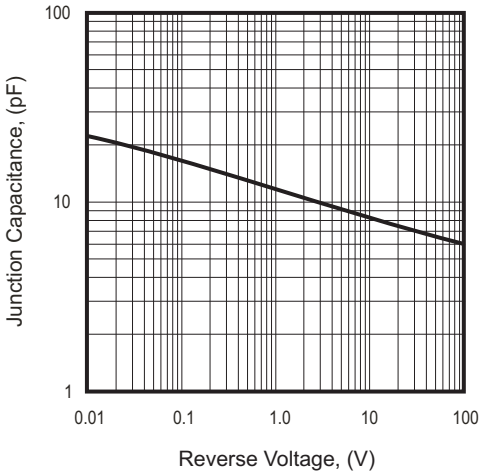
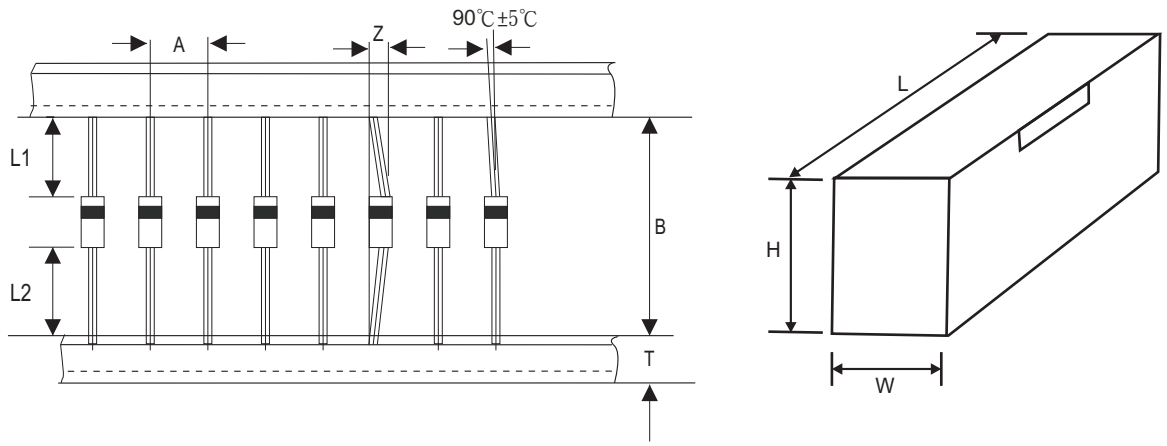


Fig.5 - Typical Junction Capacitance



Taping Specification For Axial Lead Diodes

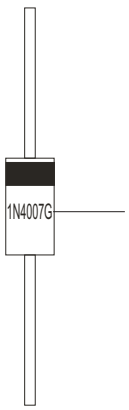


	SYMBOL	A	B	Z	T	L1	L2
DO-41	(mm)	5.00 ± 0.50	52.00 ± 0.50	1.20 (max)	6.00 ± 0.40	1.00 (max)	1.00 (max)
	(inch)	0.197 ± 0.020	2.047 ± 0.020	0.047 (max)	0.236 ± 0.016	0.039 (max)	0.039 (max)

	SYMBOL	L	W	H			
DO-41	(mm)	260.00 ± 10.00	75.00 ± 10.00	140.00 ± 10.00			
	(inch)	10.236 ± 0.394	2.953 ± 0.394	5.512 ± 0.394			

Marking Code

Part Number	Marking Code
A1N4007G-G	1N4007G



1N4007G = Product type marking code

Standard Packaging

Case Type	AMMO PACK	
	BOX (pcs)	CARTON (pcs)
DO-41	5,000	50,000