AM01Z

Description

The AM01Z is a 200 V, 1.0 A general-purpose rectifier diode with low loss characteristics. This rectifier diode is for a commercial power supply.

Features

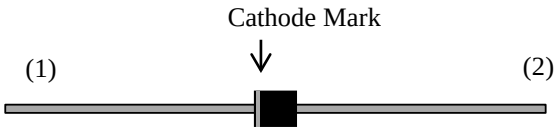
- V_{RM} ---------- 200 V
- $I_{F(AV)}$ ---------- 1.0 A
- V_F (I_F = 1.0 A) ---------- 0.89 V typ.
- Bare Leads: Pb-free (RoHS Compliant)
- Flammability: Equivalent to UL94V-0

Applications

- Rectification Circuit
- Reverse Protection Circuit

Package

Axial (φ2.4 × 2.9L / φ0.57)



(1) Cathode
(2) Anode

Not to scale

Absolute Maximum Ratings

Unless otherwise specified, T_A = 25 °C.

Parameter	Symbol	Conditions	Rating	Unit
Nonrepetitive Peak Reverse Voltage	V_{RSM}		250	V
Repetitive Peak Reverse Voltage	V_{RM}		200	V
Average Forward Current	$I_{F(AV)}$	See Figure 2 and Figure 3	1.0	A
Surge Forward Current	I_{FSM}	Half cycle sine wave, positive side, 10 ms, 1 shot	35	A
I^2t Limiting Value	I^2t	1 ms ≤ t ≤ 10 ms	6.125	A^2s
Junction Temperature	T_J		−40 to 150	°C
Storage Temperature	T_{STG}		−40 to 150	°C

Electrical Characteristics

Unless otherwise specified, T_A = 25 °C.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage Drop	V_F	I_F = 1.0 A	—	0.89	0.98	V
Reverse Leakage Current	I_R	$V_R = V_{RM}$	—	—	10	µA
Reverse Leakage Current under High Temperature	H·I_R	$V_R = V_{RM}$, T_J = 100 °C	—	—	50	µA
Thermal Resistance[(1)]	$R_{th(J-L)}$	See Figure 1	—	—	22	°C/W

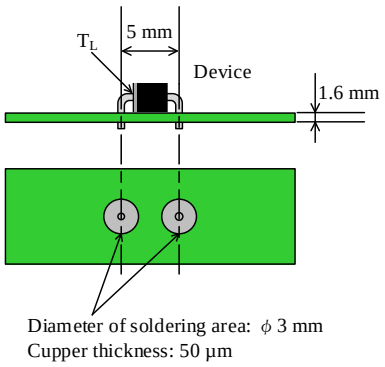


Figure 1. Lead Temperature Measurement Conditions

(1) $R_{th\ (J-L)}$ is thermal resistance between junction and lead.

Rating and Characteristic Curves

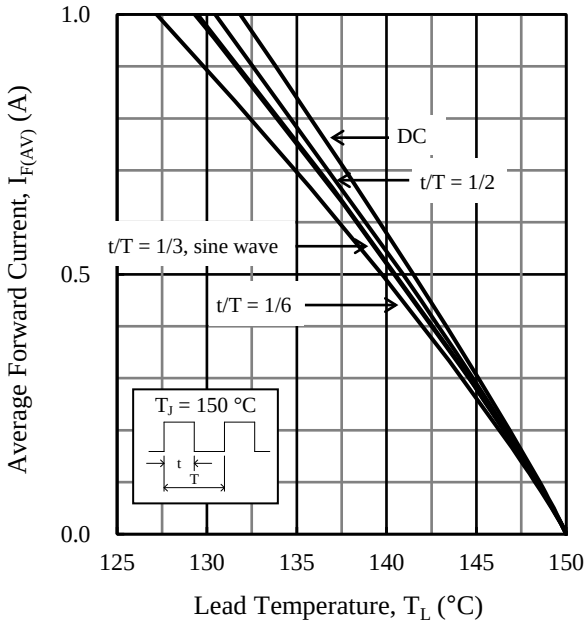


Figure 2. Typical Characteristics: $I_{F(AV)}$ vs. T_L (V_R = 0 V)

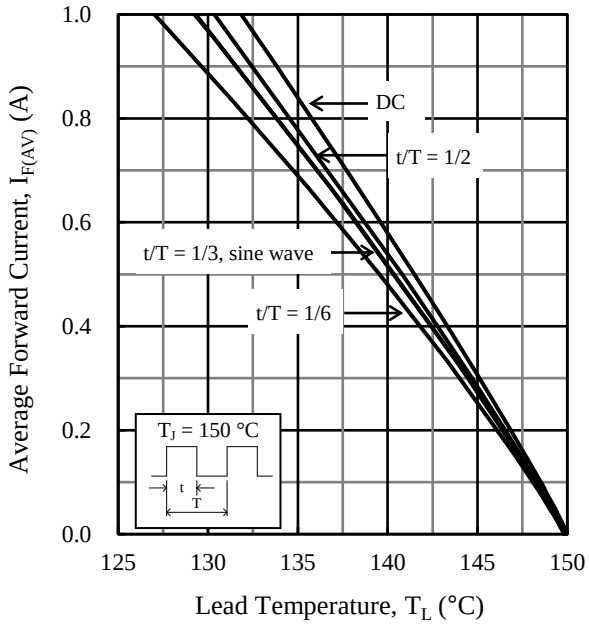


Figure 3. Typical Characteristics: $I_{F(AV)}$ vs. T_L (V_R = 200 V)

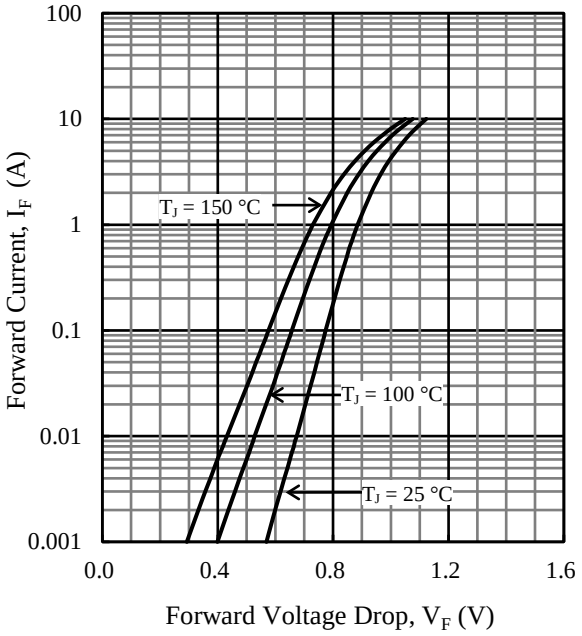


Figure 4. Typical Characteristics: I_F vs. V_F

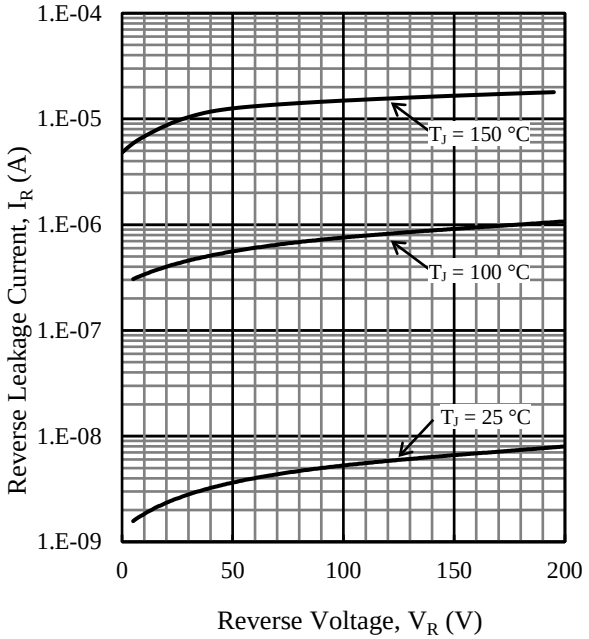
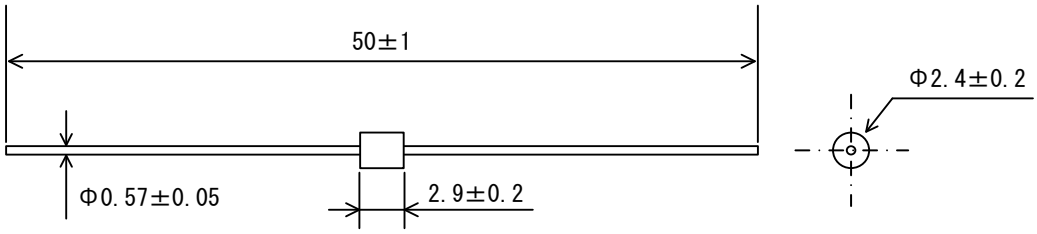


Figure 5. Typical Characteristics: I_R vs. V_R

Physical Dimensions

● **Axial (φ2.4 × 2.9L / φ0.57)**



NOTES:

- Dimensions in millimeters
- Bare leads: Pb-free (RoHS compliant)
- When soldering the products, it is required to minimize the working time within the following limits:
  Flow: 260 ± 5 °C / 10 ± 1 s, 2 times
  Soldering Iron: 380 ± 10 °C / 3.5 ± 0.5 s, 1 time (Soldering should be at a distance of at least 1.5 mm from the body of the product.)

Marking Diagram

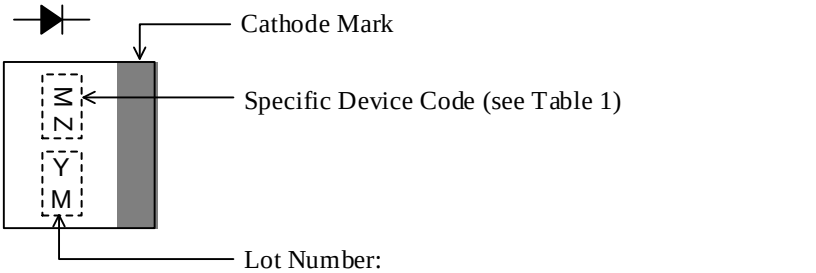


Table 1. Specific Device Code

Specific Device Code	Part Number
MZ	AM01Z

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