AM01

Data Sheet

Description

The AM01 is a 400 V, 1.0 A general-purpose rectifier diode with low loss characteristics. This rectifier diode is for a commercial power supply.

Features

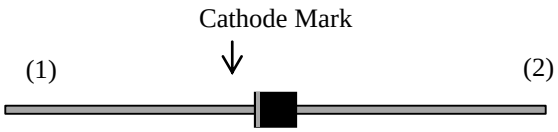
- V_{RM} ---------- 400 V
- $I_{F(AV)}$ ---------- 1.0 A
- V_F (I_F = 1.0 A) ---------- 0.92 V typ.
- Bare Leads: Pb-free (RoHS Compliant)

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
Peak Repetitive Reverse Voltage	V_{RSM}		450	V
Repetitive Reverse Voltage	V_{RM}		400	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	—	0.92	0.98	V
Reverse Leakage Current	I_R	$V_R = V_{RM}$	—	—	10	µA
Reverse Leakage Current Under High Temperature	$H \cdot I_R$	$V_R = V_{RM}$, T_J = 100 °C	—	—	50	µA
Thermal Resistance[(1)]	$R_{th(J-L)}$	See Figure 1	—	—	22	°C/W

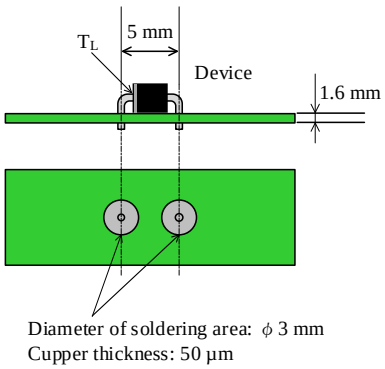


Figure 1 Lead Temperature Measurement Conditions

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

Rating and Characteristic Curves

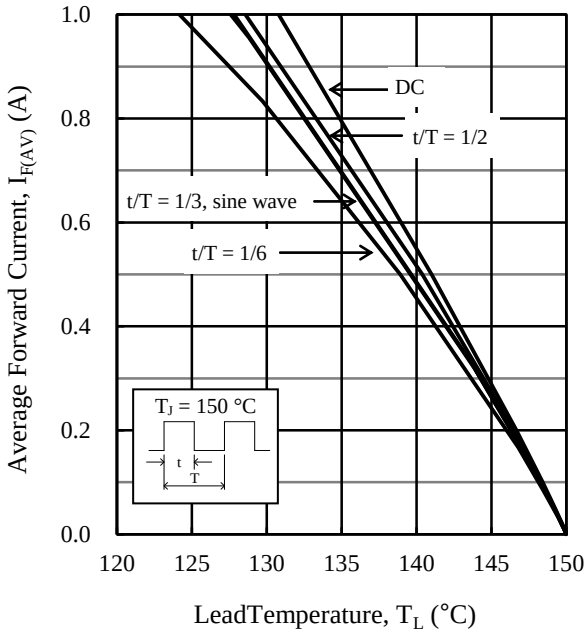


Figure 2. T_L vs. $I_{F(AV)}$ Typical Characteristics (V_R = 0 V)

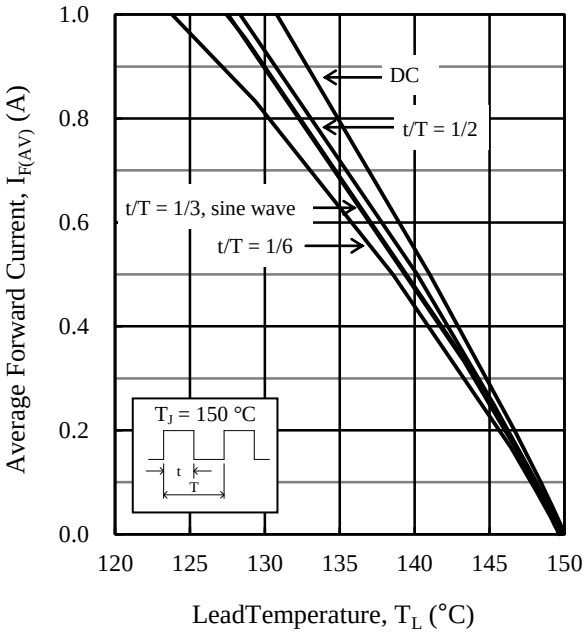


Figure 3. T_L vs. $I_{F(AV)}$ Typical Characteristics (V_R = 400 V)

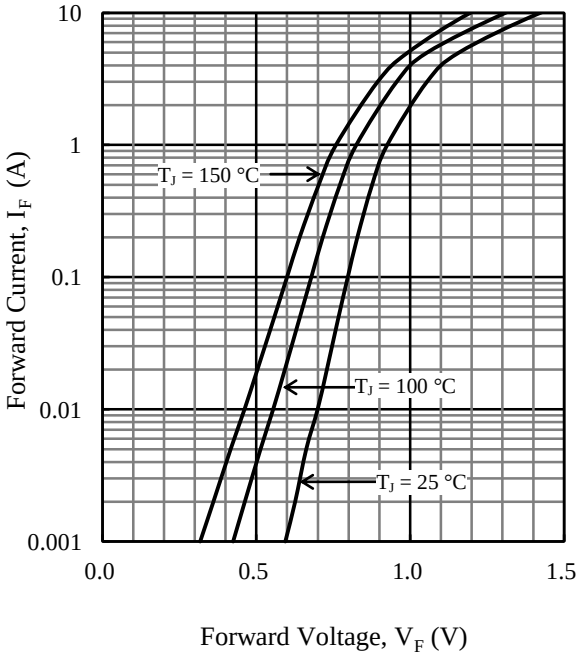


Figure 4. V_F vs. I_F Typical Characteristics

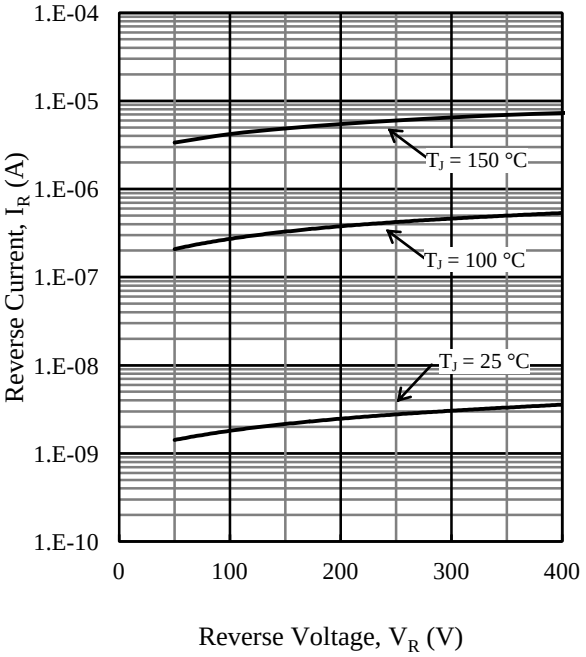
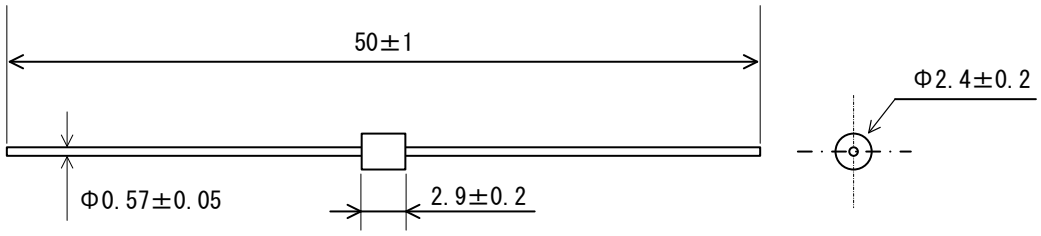


Figure 5. V_R vs. I_R Typical Characteristics

Physical Dimensions

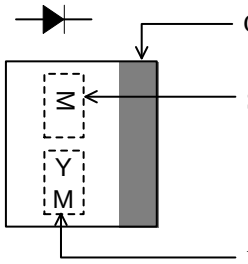
● **Axial (φ2.4 × 2.9L / φ0.57)**



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



Cathode Mark

Specific Device Code (see Table 1)

Lot Number:
Y is the last digit of the year of manufacture (0 to 9)
M is the month of the year (1 to 9, O, N or D)

Table 1. Specific Device Code

Specific Device Code	Part Number
M	AM01

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