V_{RM} = 750 V
High Voltage Rectifier Diode

AM01JB

Data Sheet

Description

The AM01JB is a high voltage rectifier diode for the ignition coil of automotive electronics unit, and have high surge capability.

Features

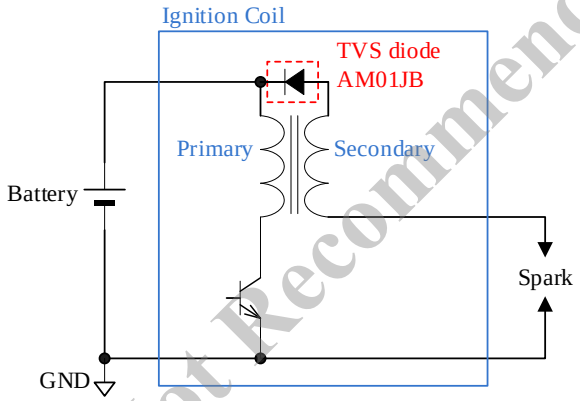
- High Reliability
- Meets Automotive Requirement
- High Surge Capability
- Flammability UL94V-0 (Equivalent)
- RoHS Compliant

- V_{RM}---------- 750 V
- $I_{F(AV)}$----------10 mA
- V_F---------- 1.0 V (max.)

Application

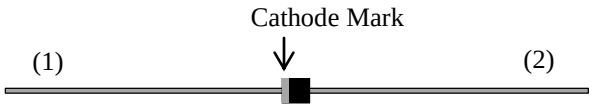
- Ignition coil of automotive electronics unit

Typical Application



Package

Axial (φ2.4 × 2.9L / φ0.49)



Not to scale

Internal Schematic Diagram

(1) Cathode
(2) Anode

Absolute Maximum Ratings

Unless specifically noted T_A = 25 °C.

Parameter	Symbol	Conditions	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RM}	—	750	V
Surge Reverse Current	I_{RSM}	See Figure 1, single pulse	70	mA
Average Forward Current	$I_{F(AV)}$	—	10	mA
Surge Forward Current	I_{FSM}	Half cycle sine-wave, positive side, 10ms, 1 shot	10	A
Junction Temperature	T_J	—	−40 to 150	°C
Storage Temperature	T_{STG}	—	−40 to 150	°C

Electrical Characteristics

Unless specifically noted, T_A = 25 °C.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage Drop	V_F	I_F = 10 mA	—	—	1.0	V
Reverse Leakage Current	I_R	$V_R = V_{RM}$	—	—	10	µA
Breakdown Voltage	V_Z	I_Z = 100 µA	850	—	1100	V

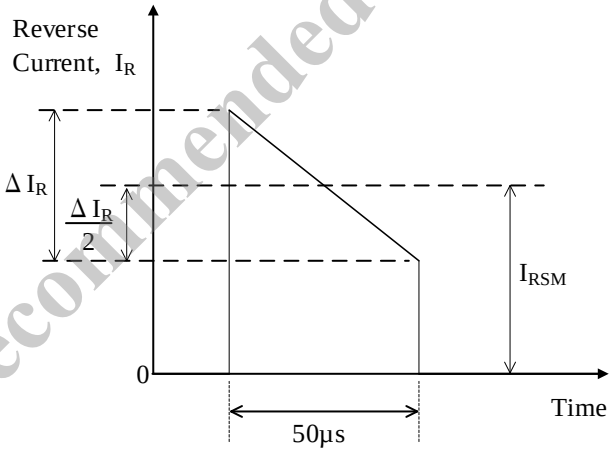


Figure 1. Definition of Surge Reverse Current, I_{RSM}

Rating and Characteristic Curves

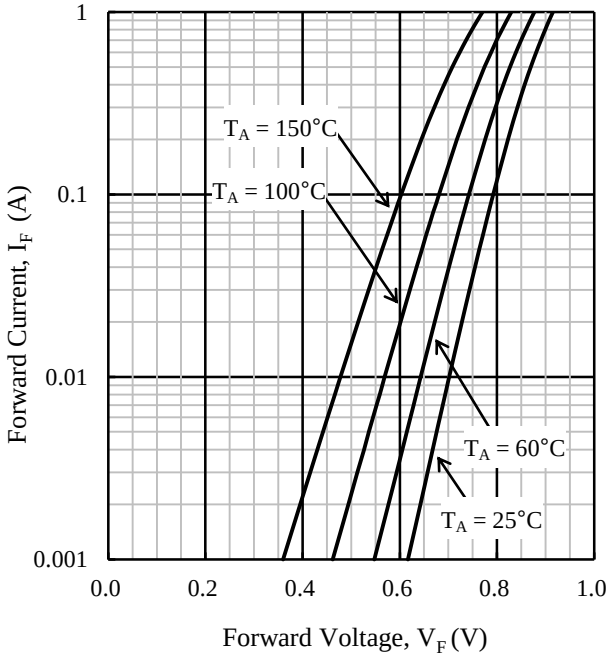


Figure 2. I_F − V_F Typical Characteristics

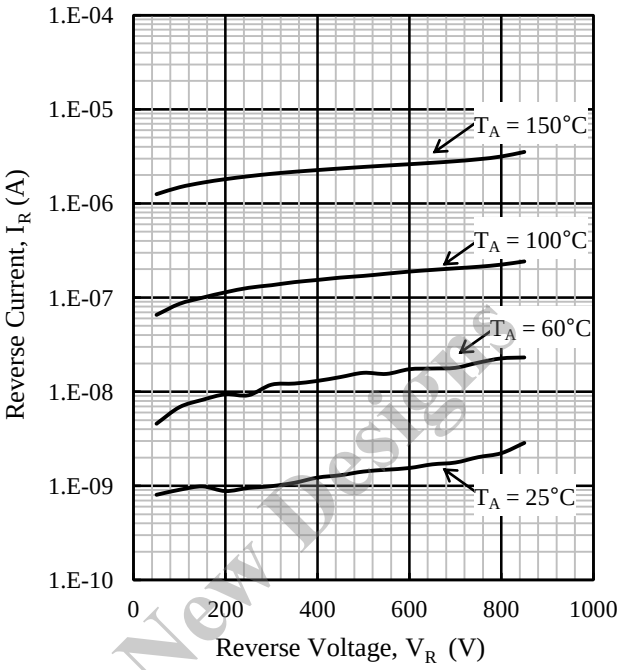


Figure 3. I_R − V_R Typical Characteristics

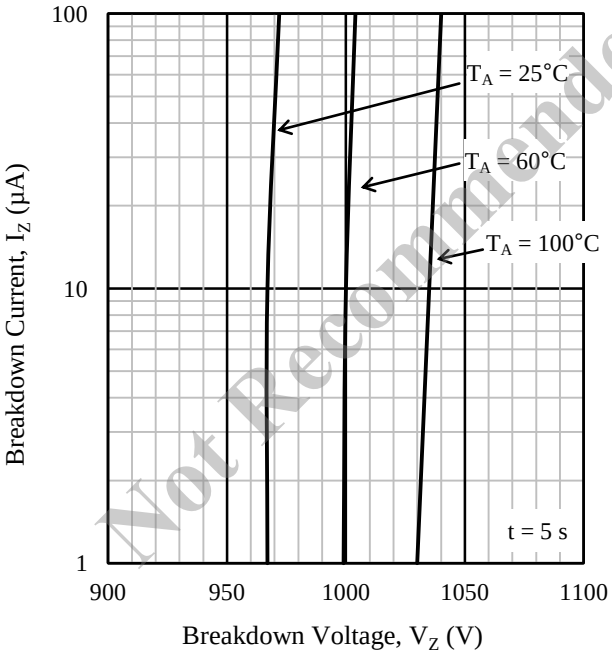


Figure 4. I_Z − V_Z Typical Characteristics

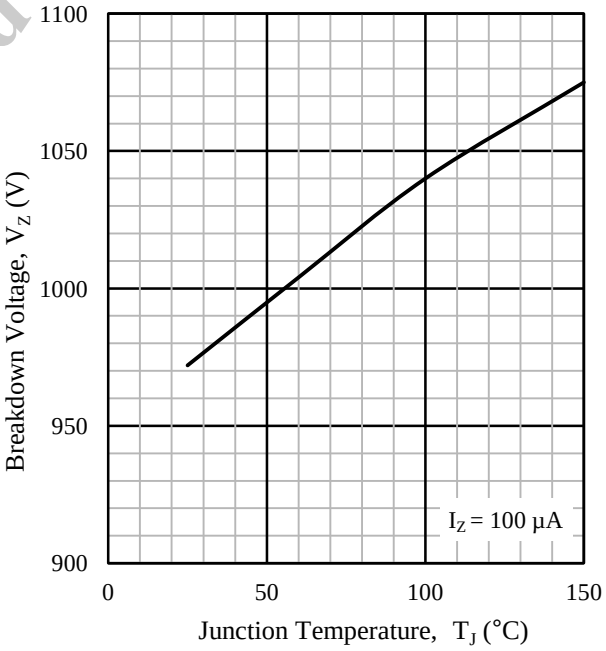
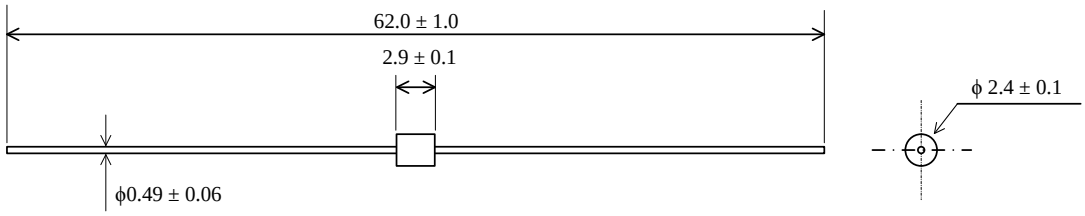


Figure 5. V_Z − T_J Typical Characteristics

Physical Dimensions

Axial (φ2.4 × 2.9L / φ0.49)



NOTES:

- Dimensions in millimeters
- Bare leads: Pb-free (RoHS compliant)
- When soldering the products, be sure 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 products.)

Marking Diagram

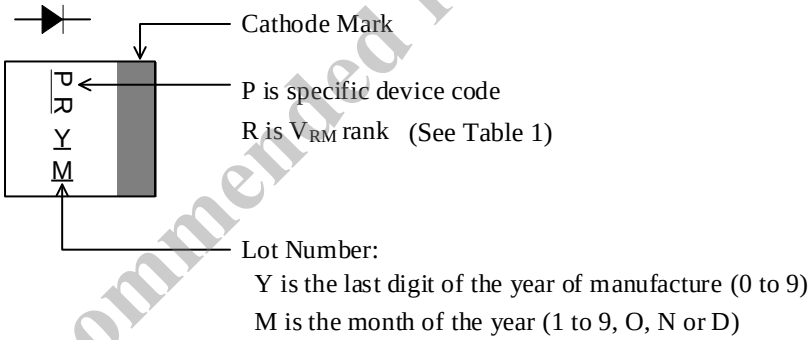


Table 1. Specific Device Code and V_{RM} Rank

Specific Device Code	V_{RM} Rank	Part Number
J	B	AM01JB

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