

**$V_{RM} = 750\text{ V}$**   
**High Voltage Rectifier Diode**  
**AM01JB**

**Description**

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

**Features**

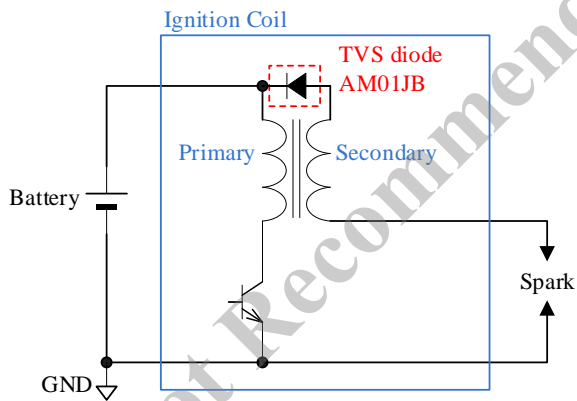
- High Reliability
- Meets Automotive Requirement
- High Surge Capability
- Flammability UL94V-0 (Equivalent)
- RoHS Compliant

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

**Application**

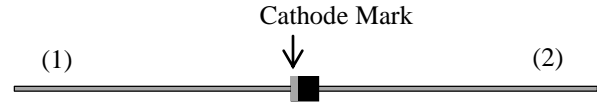
- Ignition coil of automotive electronics unit

**Typical Application**



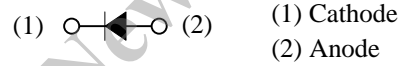
**Package**

Axial ( $\phi 2.4 \times 2.9L / \phi 0.49$ )



Not to scale

**Internal Schematic Diagram**



**Absolute Maximum Ratings**

Unless specifically noted  $T_A = 25\text{ }^\circ\text{C}$ .

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	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	—	-40 to 150	$^\circ\text{C}$

**Electrical Characteristics**

Unless specifically noted,  $T_A = 25\text{ }^\circ\text{C}$ .

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

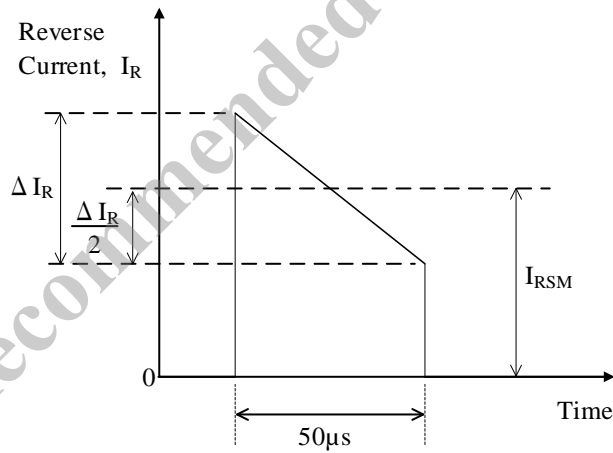


Figure 1. Definition of Surge Reverse Current,  $I_{RSM}$

Rating and Characteristic Curves

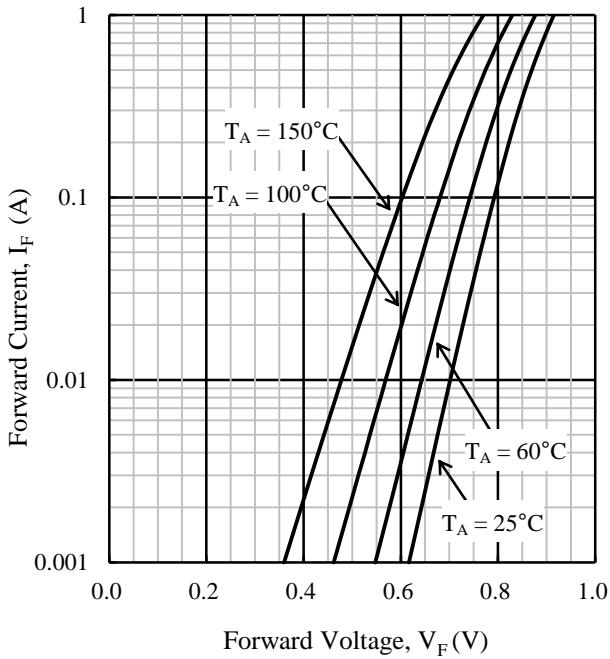


Figure 2.  $I_F - V_F$  Typical Characteristics

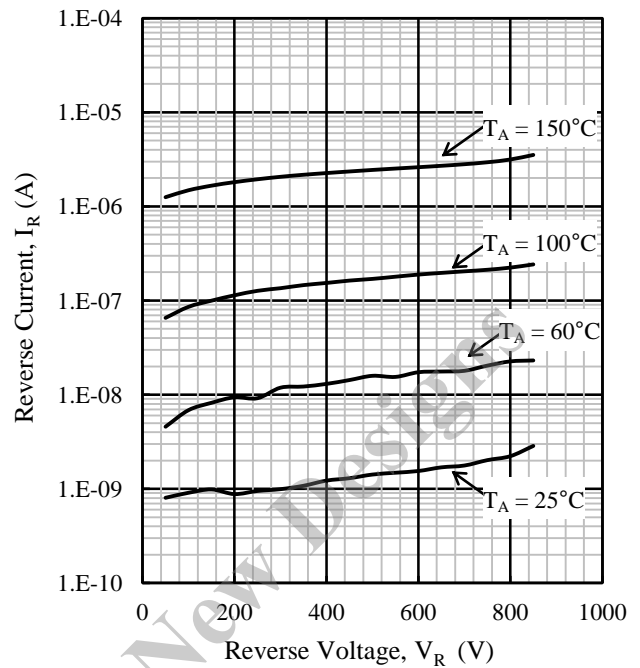


Figure 3.  $I_R - V_R$  Typical Characteristics

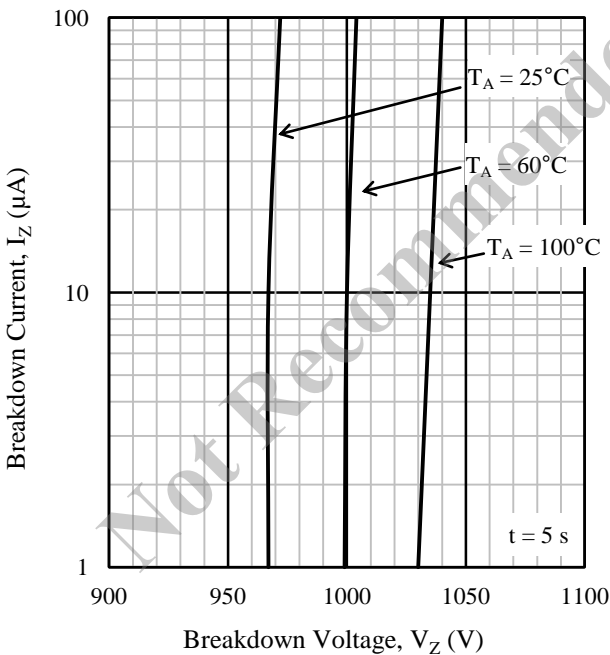


Figure 4.  $I_Z - V_Z$  Typical Characteristics

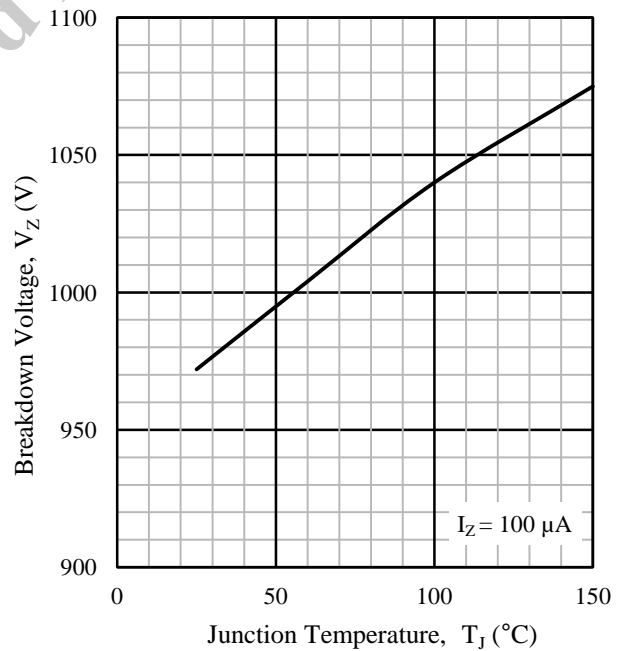
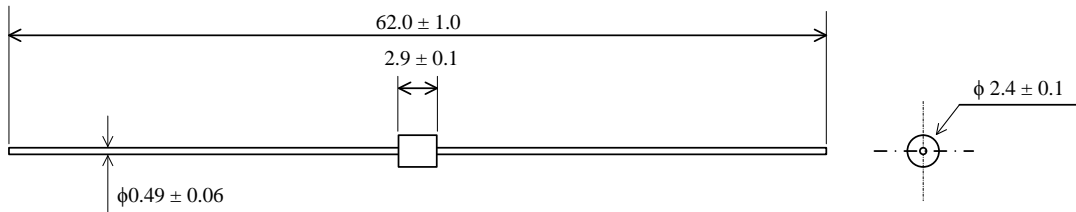


Figure 5.  $V_Z - T_J$  Typical Characteristics

# AM01JB

## Physical Dimensions

Axial ( $\phi 2.4 \times 2.9L / \phi 0.49$ )



### 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:  $260 \pm 5 \text{ }^\circ\text{C} / 10 \pm 1 \text{ s}$ , 2 times  
 Soldering Iron:  $380 \pm 10 \text{ }^\circ\text{C} / 3.5 \pm 0.5 \text{ s}$ , 1 time (Soldering should be at a distance of at least 1.5 mm from the body of the products.)

## Marking Diagram

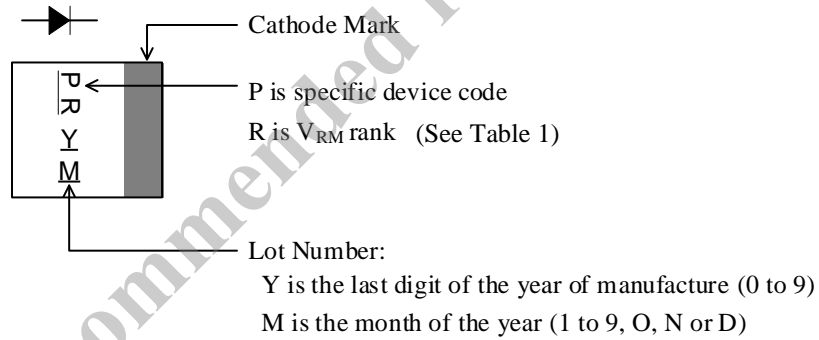


Table 1. Specific Device Code and  $V_{RM}$  Rank

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

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