

$V_{RM} = 750\text{ V}$
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

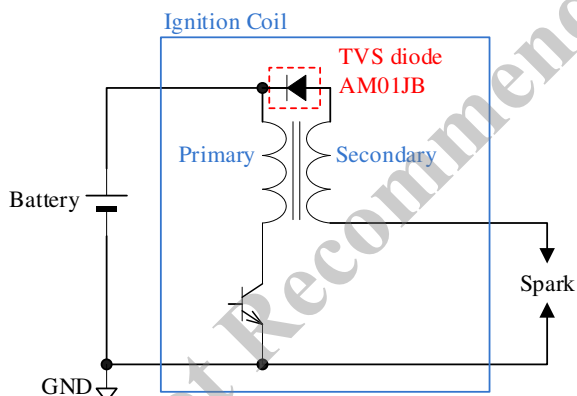
- High Reliability
- Meets Automotive Requirement
- High Surge Capability
- Flammability UL94V-0 (Equivalent)
- RoHS Compliant

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

Application

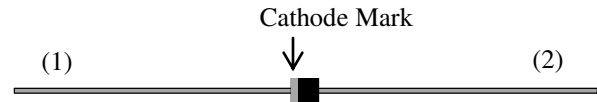
- Ignition coil of automotive electronics unit

Typical Application



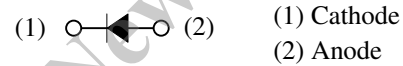
Package

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	μA
Breakdown Voltage	V_Z	$I_Z = 100\text{ }\mu\text{A}$	850	—	1100	V

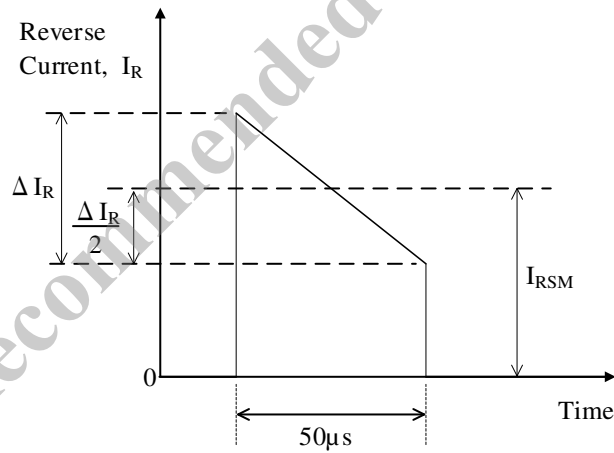


Figure 1. Definition of Surge Reverse Current, I_{RSM}

Rating and Characteristic Curves

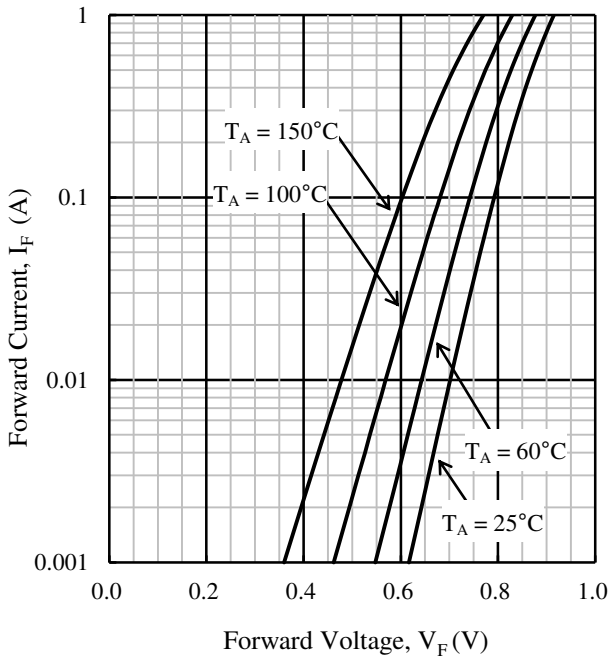


Figure 2. $I_F - V_F$ Typical Characteristics

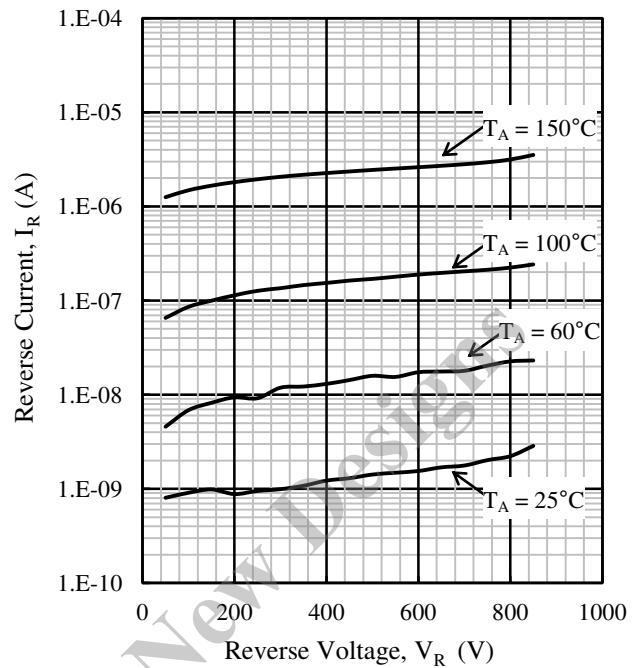


Figure 3. $I_R - V_R$ Typical Characteristics

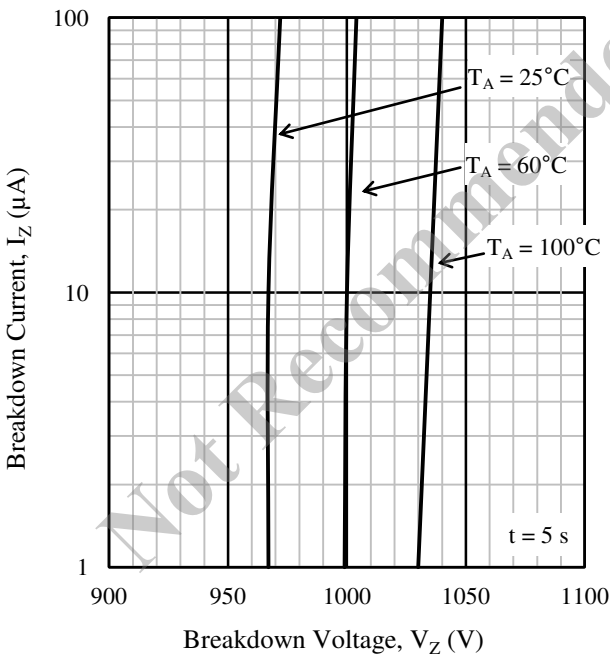


Figure 4. $I_Z - V_Z$ Typical Characteristics

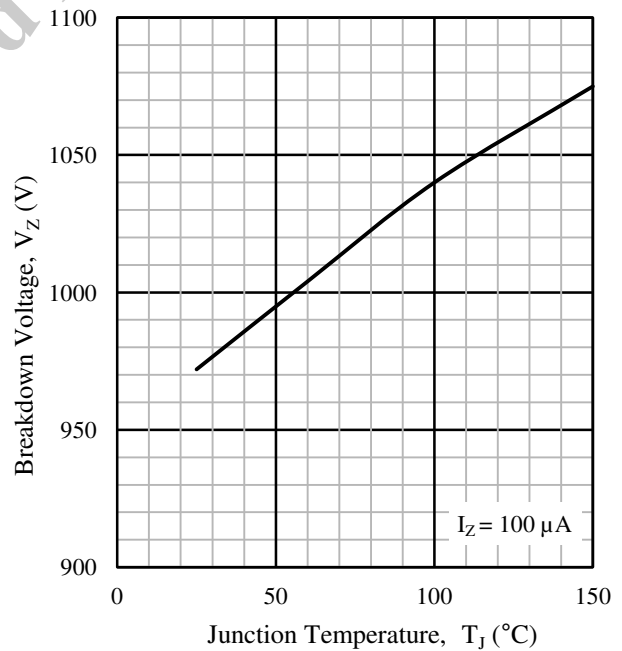
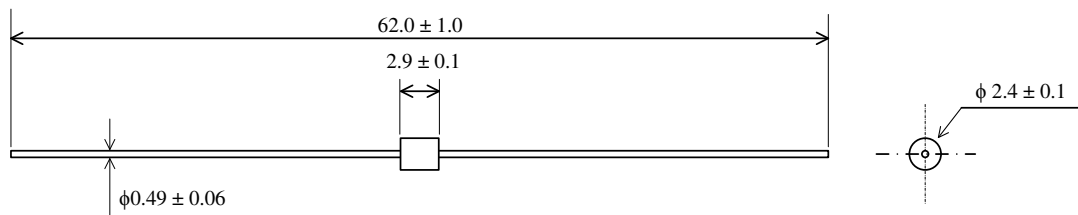


Figure 5. $V_Z - T_J$ Typical Characteristics

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

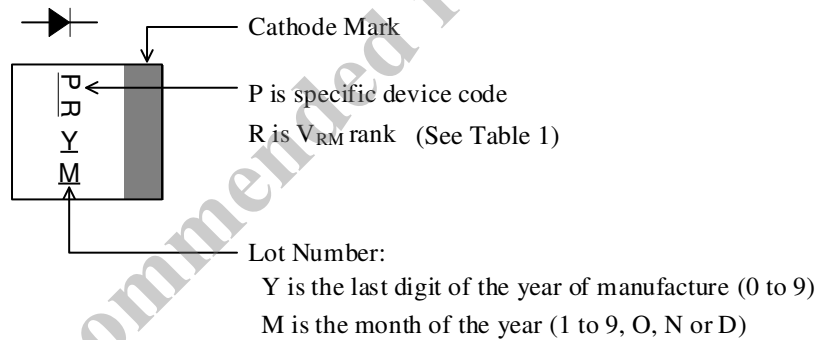


Table 1. Specific Device Code and V_{RM} Rank

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

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