

**Micro Commercial Components** 

Micro Commercial Components 20736 Marilla Street Chatsworth

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Surface Mount Package Ideally Suited for Automatic Insertion

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## BAS16W

# **High Speed Switching Diode** 350mW

# designates RoHS Compliant. See ordering information) **Mechanical Data**

**High Conductance** Fast Switching Speed

Marking: A6, T6

**Features** 

Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

For General Purpose Switching Applications Lead Free Finish/RoHS Compliant ("P" Suffix

Polarity: Indicated by Cathode Band

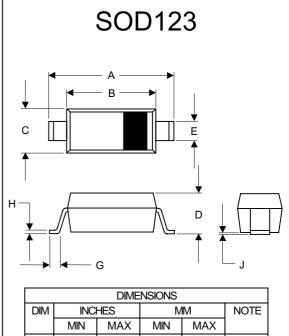
### Maximum Ratings @ 25°C Unless Otherwise Specified

| Characteristic  | Symbol               | Value       | Unit   |
|---|----------------------|-------------|--------|
| Non-Repetitive Peak Reverse Volt.                               | V <sub>RM</sub>      | 85          | V      |
| Peak Repetitive Reverse Voltage                                 | VRRM                 |             |        |
| Working Peak Reverse Voltage                                    | $V_{RWM}$            | 75          | V      |
| DC Blocking Voltage   | $V_R$                |             |        |
| RMS Reverse Voltage   | $V_{R(RMS)}$         | 53          | V      |
| Forward Continuous Current(Note1)                               | Іғм                  | 200         | mA     |
| Average Rectified Output Current                                | lo                   | 100         | mA     |
| Non-Repetitive Peak @ t<=1.0s<br>Forward Surge Current @ t=10us | lгsм                 | 2<br>1      | A<br>A |
| Power Dissipation(Note 1)                                       | Pd                   | 350         | mW     |
| Thermal Resistance(Note 1)                                      | R                    | 315         | K/W    |
| Operation/Storage Temp. Range                                   | Tj, T <sub>STG</sub> | -55 to +150 | °C     |

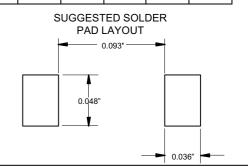
#### Electrical Characteristics @ 25°C Unless Otherwise Specified

| <del></del>           |          |       |    | ,                            |
|-----------------------|----------|-------|----|------------------------------|
|                       |          | 0.715 |    | I <sub>F</sub> =1.0mA        |
| Maximum Forward       | $V_{FM}$ | 0.855 | V  | I <sub>F</sub> =10mA         |
| Voltage Drop          |          | 1     |    | I <sub>F</sub> =50mA         |
|                       |          | 1.25  |    | I <sub>F</sub> =150mA        |
|                       |          |       |    |                              |
| Maximum Peak          | lгм      | 1.0   |    | V <sub>R</sub> =75V Tj=25°C  |
| Reverse Current       |          | 50    | uA | V <sub>R</sub> =75V Tj=150°C |
|                       |          |       |    |                              |
| Junction Capacitance  | Cj       | 2     | рF | V <sub>R</sub> =0V, f=1.0MHz |
|                       |          |       |    | IF=IR=10mA, Irr=0.1IR,       |
| Reverse Recovery Time | trr      | 6     | ns | R <sub>L</sub> =100 OHM      |

Notes: 1. Valid provided that terminals are kept at ambient temperature



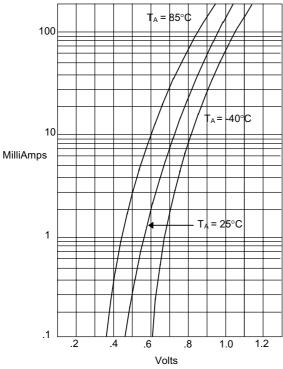
|     | DIVILINOIONO |      |      |      |      |  |
|-----|--------------|------|------|------|------|--|
| DIM | INCHES       |      | MM   |      | NOTE |  |
|     | MIN          | MAX  | MIN  | MAX  |      |  |
| Α   | .140         | .152 | 3.55 | 3.85 |      |  |
| В   | .100         | .112 | 2.55 | 2.85 |      |  |
| С   | .055         | .071 | 1.40 | 1.80 |      |  |
| D   |              | .053 |      | 1.35 |      |  |
| Ε   | .012         | .031 | 0.30 | .78  |      |  |
| G   | .006         |      | 0.15 |      |      |  |
| Н   |              | .01  |      | .25  |      |  |
| J   |              | .006 |      | .15  |      |  |



# BAS16W



Figure 1
Typical Forward Characteristics

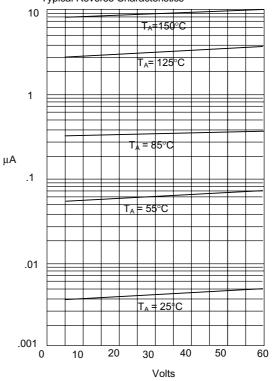


Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 2

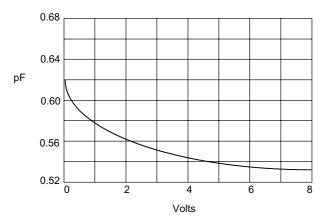
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Typical Reverse Characteristics



Instantaneous Reverse Current - MicroAmperes/ersus Reverse Voltage - Volts

Figure 3 Diode Capacitance



Diode Capacitance - pFversus Reverse Voltage - Volts



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### **Ordering Information**

| Device           | Packing             |
|------------------|---------------------|
| (Part Number)-TP | Tape&Reel3Kpcs/Reel |

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