

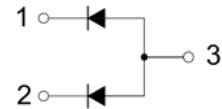
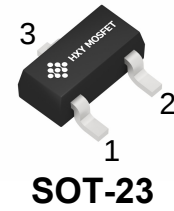


## Features

- Forward Current  $I_F = 200\text{mA}$
- Power Dissipation of 225mW

## Package Marking and Ordering Information

| Product ID        | Pack   | Marking | Qty(PCS) |
|-------------------|--------|---------|----------|
| BAS7006E6327HTSA1 | SOT-23 | A1      | 3000     |



## Maximum Ratings ( $T_a = 25^\circ\text{C}$ unless otherwise noted)

| Parameter                                                      | Symbol          | Limit    | Unit               |
|----------------------------------------------------------------|-----------------|----------|--------------------|
| Reverse Voltage                                                | $V_R$           | 70       | V                  |
| Forward Current                                                | $I_F$           | 200      | mA                 |
| Non-Repetitive Peak Forward Surge Current @ $t = 8.3\text{ms}$ | $I_{FSM}$       | 2.0      | A                  |
| Power Dissipation                                              | $P_D$           | 225      | mW                 |
| Thermal Resistance Junction to Ambient                         | $R_{\theta JA}$ | 556      | $^\circ\text{C/W}$ |
| Junction Temperature                                           | $T_J$           | 150      | $^\circ\text{C}$   |
| Storage Temperature range                                      | $T_{STG}$       | -55~+150 | $^\circ\text{C}$   |

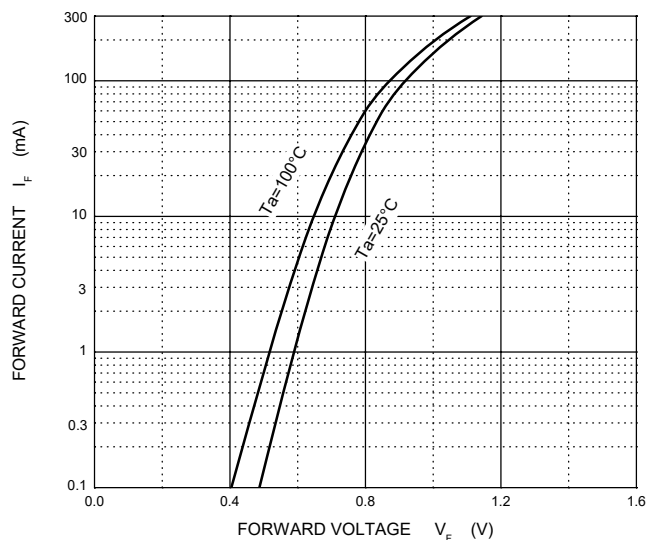
## Electrical Characteristics ( $T_a = 25^\circ\text{C}$ unless otherwise specified)

| Parameter                     | Symbol   | Min | Typ | Max   | Unit          | Conditions                                                                   |
|-------------------------------|----------|-----|-----|-------|---------------|------------------------------------------------------------------------------|
| Reverse breakdown voltage     | $V_R$    | 70  |     |       | V             | $I_R = 100\mu\text{A}$                                                       |
| Forward voltage               | $V_{F1}$ |     |     | 0.715 | V             | $I_F = 1\text{mA}$                                                           |
|                               | $V_{F2}$ |     |     | 0.855 | V             | $I_F = 10\text{mA}$                                                          |
|                               | $V_{F3}$ |     |     | 1     | V             | $I_F = 50\text{mA}$                                                          |
|                               | $V_{F4}$ |     |     | 1.25  | V             | $I_F = 150\text{mA}$                                                         |
| Reverse current               | $I_R$    |     |     | 2.5   | $\mu\text{A}$ | $V_R = 70\text{V}$                                                           |
| Capacitance between terminals | $C_T$    |     |     | 1.5   | pF            | $V_R = 0, f = 1\text{MHz}$                                                   |
| Reverse recovery time         | $t_{rr}$ |     |     | 6     | ns            | $I_F = I_R = 10\text{mA}$ ,<br>$I_{rr} = 0.1 \times I_R$ , $R_L = 100\Omega$ |

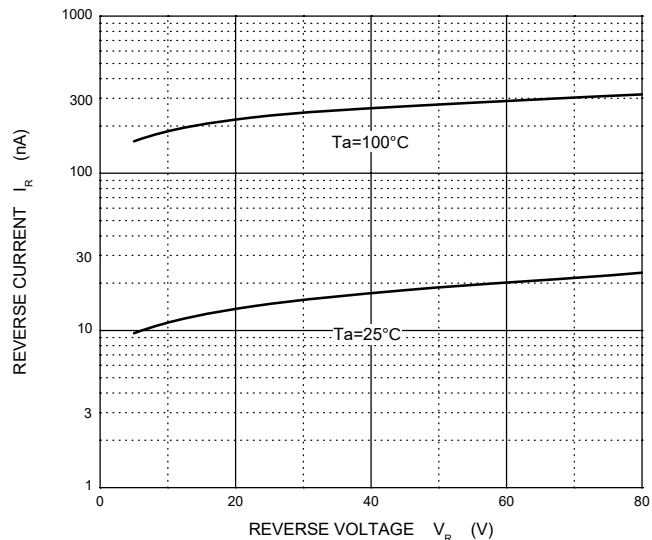


## Typical Characteristics

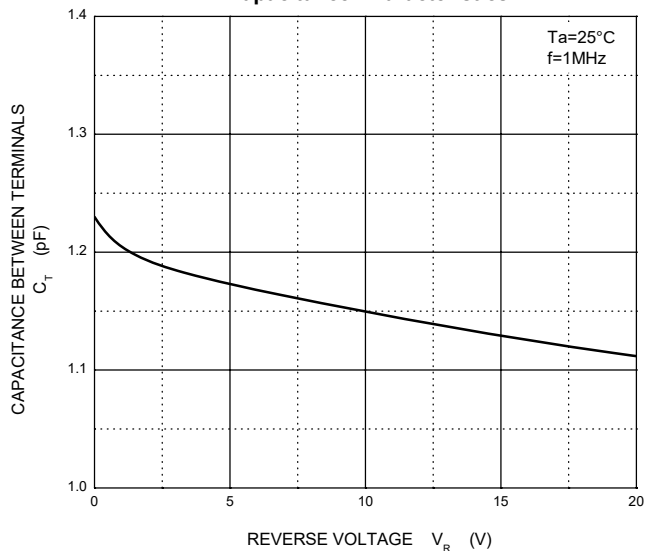
Forward Characteristics



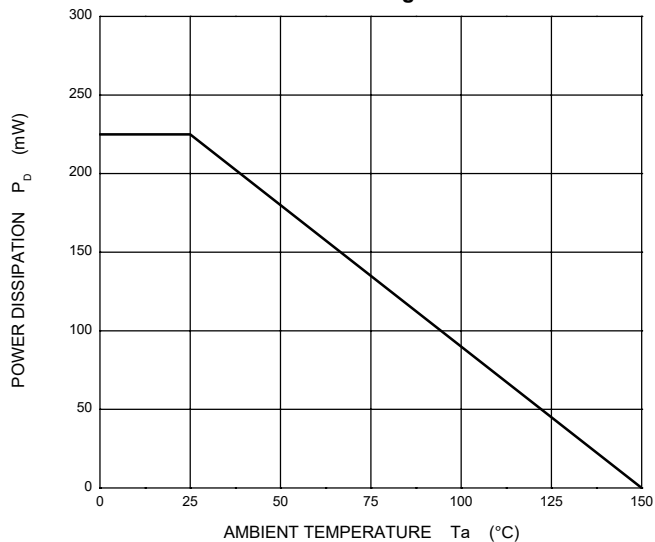
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



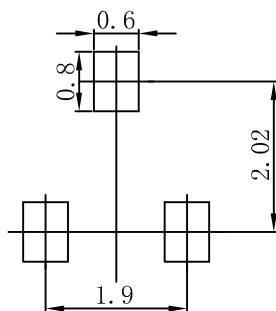


## SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.150 | 0.035                | 0.045 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.050 | 0.035                | 0.041 |
| b      | 0.300                     | 0.500 | 0.012                | 0.020 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 2.800                     | 3.000 | 0.110                | 0.118 |
| E      | 1.200                     | 1.400 | 0.047                | 0.055 |
| E1     | 2.250                     | 2.550 | 0.089                | 0.100 |
| e      | 0.950 TYP                 |       | 0.037 TYP            |       |
| e1     | 1.800                     | 2.000 | 0.071                | 0.079 |
| L      | 0.550 REF                 |       | 0.022 REF            |       |
| L1     | 0.300                     | 0.500 | 0.012                | 0.020 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

## SOT-23 Suggested Pad Layout



Note:  
1. Controlling dimension: in millimeters.  
2. General tolerance:  $\pm 0.05\text{mm}$ .  
3. The pad layout is for reference purposes only.



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