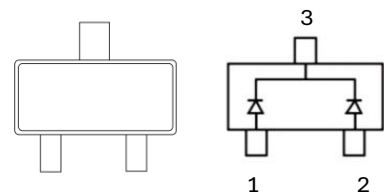


### FEATURES AND BENEFITS

| Product Summary |       |        |
|-----------------|-------|--------|
| $I_O$           | 200mA | @25 °C |
| $V_F$           | 0.32V | @1mA   |
| $V_{RRM}$       | 30V   | @25 °C |

- For High-Speed Switching Applications
- Low Current Leakage
- RoHS Compliant / Green EMC UL Flammability Classification Rating 94V-0
- Matte Tin (Sn) Lead finish Solderable per MIL-STD-202, Method 208
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.002 grams (Approximate)

SOT-523



| Maximum Ratings (TA = 25 °C unless otherwise noted)  |           |             |      |
|------------------------------------------------------|-----------|-------------|------|
| PARAMETER                                            | SYMBOL    | VALUE       | UNIT |
| Repetitive Peak Reverse Voltage                      | $V_{RRM}$ | 30          | V    |
| Working Reverse Voltage                              | $V_{RWM}$ | 30          | V    |
| Average Rectified Output Current                     | $I_O$     | 200         | mA   |
| Non-Repetitive Peak Forward Surge Current (@t=8.3ms) | $I_{FSM}$ | 600         | mA   |
| Power Dissipation                                    | $P_{TM}$  | 150         | mW   |
| Junction Temperature                                 | $T_J$     | 125         | °C   |
| Storage Temperature                                  | $T_{STG}$ | -55 to +150 | °C   |

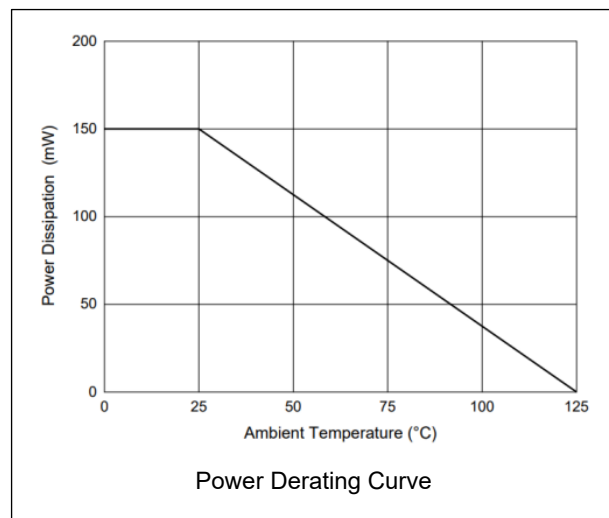
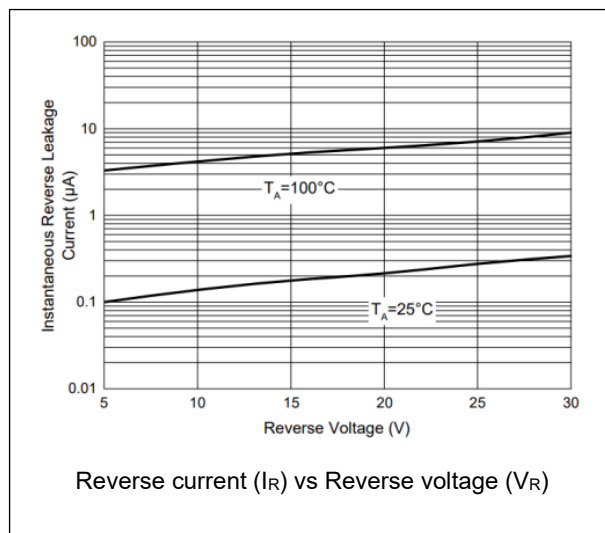
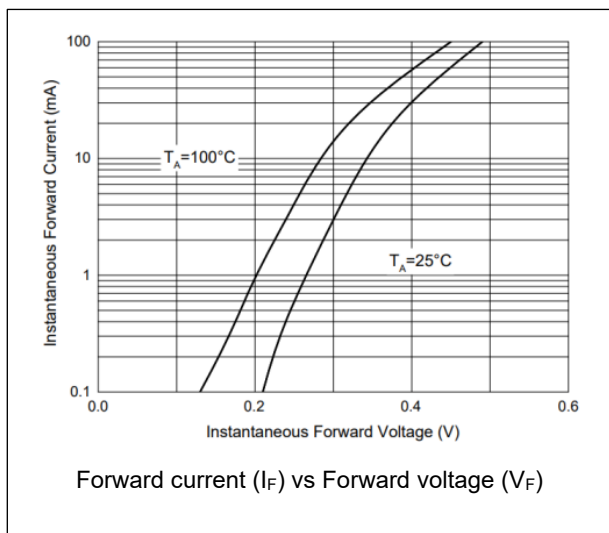
| THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted) |                 |       |      |
|-------------------------------------------------------------|-----------------|-------|------|
| PARAMETER                                                   | SYMBOL          | VALUE | UNIT |
| Thermal Resistance from Junction to Ambient*                | $R_{\theta JA}$ | 667   | °C/W |

\* Device mounted on 1"x1" FR4 PCB

### ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)

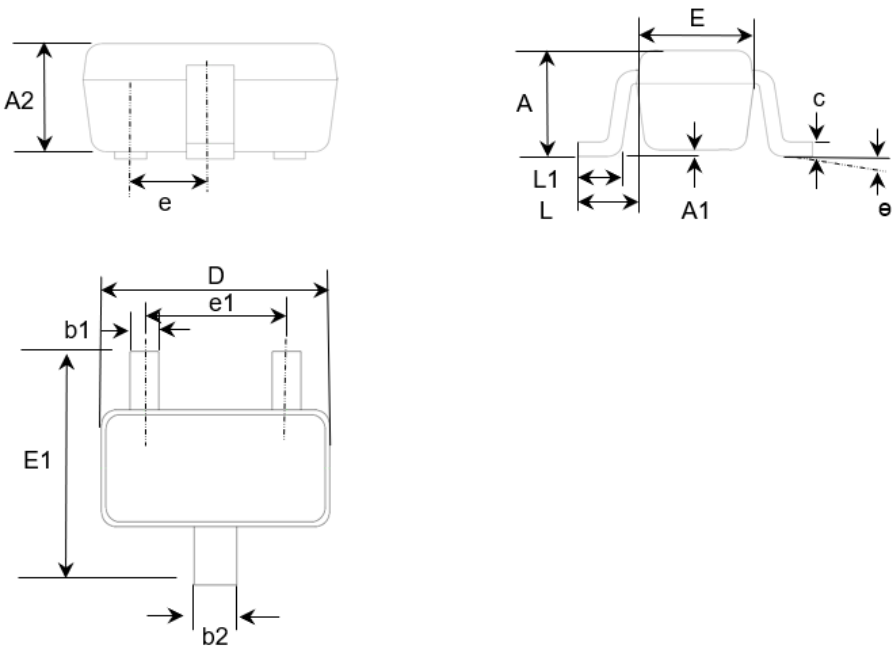
| PARAMETER             | SYMBOL   | CONDITION                                                                        | MIN | MAX  | UNIT          |
|-----------------------|----------|----------------------------------------------------------------------------------|-----|------|---------------|
| Forward Voltage       | $V_F$    | $I_F = 1\text{mA}$                                                               |     | 0.32 | V             |
|                       |          | $I_F = 10\text{mA}$                                                              |     | 0.40 |               |
|                       |          | $I_F = 30\text{mA}$                                                              |     | 0.50 |               |
|                       |          | $I_F = 100\text{mA}$                                                             |     | 1.00 |               |
| Reverse Current       | $I_R$    | $V_R = 25\text{V}$                                                               |     | 2.0  | $\mu\text{A}$ |
| Capacitance           | $C_T$    | $V_R = 0\text{V}, f = 1\text{MHz}$                                               |     | 10.0 | pF            |
| Reverse Recovery Time | $t_{rr}$ | $I_F = 10\text{mA}, I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$ |     | 5.0  | ns            |

### RATING AND CHARACTERISTICS CURVES



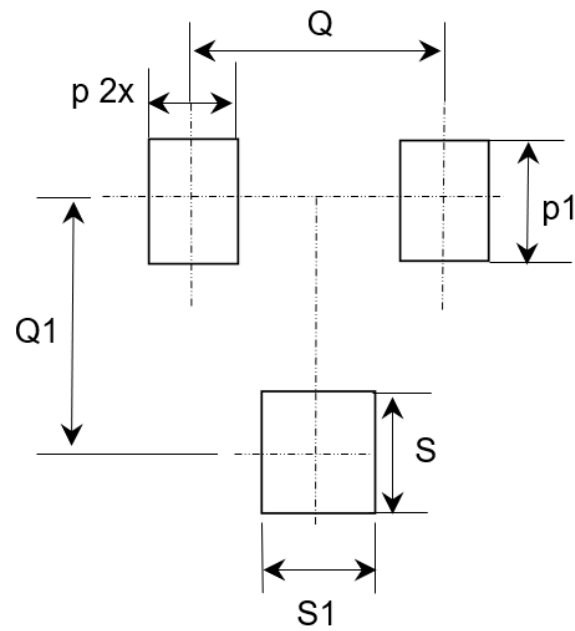
**PACKAGE OUTLINE DIMENSIONS**

SOT-523



| Symbol | MIN     | MAX      |
|--------|---------|----------|
| A      | 0.7     | 0.9      |
| A1     | 0       | 0.1      |
| A2     | 0.7     | 0.8      |
| b1     | 0.15    | 0.25     |
| b2     | 0.25    | 0.35     |
| c      | 0.1     | 0.2      |
| D      | 1.5     | 1.7      |
| E      | 0.7     | 0.9      |
| E1     | 1.45    | 1.75     |
| e      | 0.50TYP |          |
| e1     | 1.45    | 1.75     |
| L      | 0.40REF |          |
| L1     | 0.26    | 0.46     |
| e      | 0°      | 8°       |
|        |         | Unit: mm |

**SUGGESTED PAD LAYOUT**



| Symbol   | Type |
|----------|------|
| Q1       | 1.24 |
| Q        | 1.00 |
| p        | 0.40 |
| p1       | 0.60 |
| S        | 0.60 |
| S1       | 0.50 |
| Unit: mm |      |

**DEVICE MARKING AND ORDERING INFORMATION**

| DEVICE   | Marking | Quantity  | Packing     |
|----------|---------|-----------|-------------|
| BAT54CTB | L3      | 3000/Reel | Tape & Reel |

## NOTICE:

AZUREMOTO'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS COMPONENTS IN ANY LIFE SUPPORT DEVICES OR SYSTEMS.  
AZUREMOTO RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE  
RELIABILITY OR RUGGEDNESS.