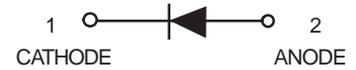
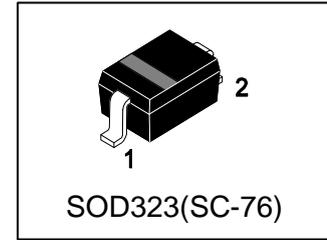


# LBAS21HT1G

## S-LBAS21HT1G

High Voltage Switching Diode



### 1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

### 2. DEVICE MARKING AND RESISTOR VALUES

| Device     | Marking | Shipping        |
|------------|---------|-----------------|
| LBAS21HT1G | JS      | 3000/Tape&Reel  |
| LBAS21HT3G | JS      | 10000/Tape&Reel |

### 3. MAXIMUM RATINGS(Ta = 25°C)

| Parameter  | Symbol | Limits | Unit |
|--|--------|--------|------|
| Continuous Reverse Voltage                             | VR     | 250    | V    |
| Peak Forward Current                                   | IF     | 200    | mA   |
| Repetitive Peak Forward Surge Current (tp=1ms, δ=0.25) | IFRM   | 625    | mA   |
| Non-Repetitive Peak Forward Surge Current (tp =1μs)    | IFSM   | 9      | A    |
| (tp =100μs)  |        | 3      | A    |
| (tp =10ms)   |        | 1.7    | A    |

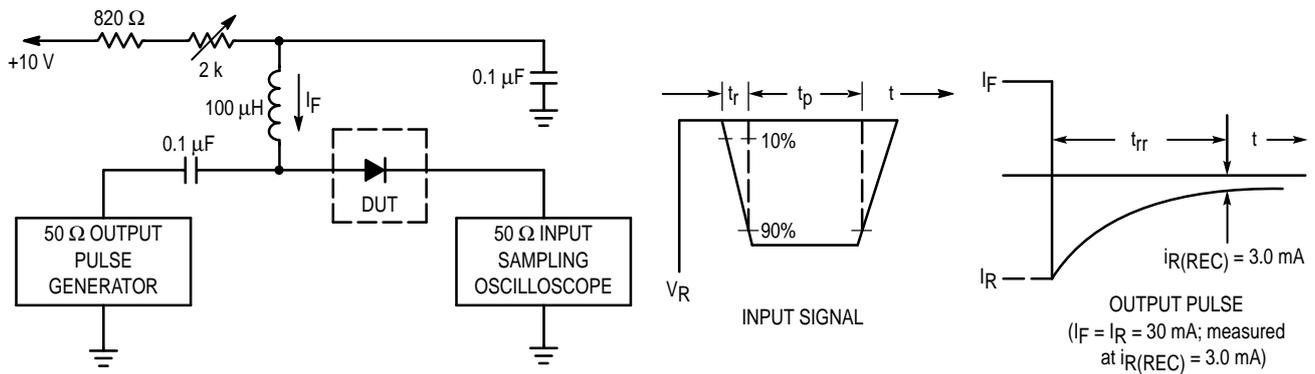
### 4. THERMAL CHARACTERISTICS

| Parameter   | Symbol    | Limits   | Unit  |
|---|-----------|----------|-------|
| Total Device Dissipation FR- 5 Board, (Note 1)<br>TA = 25°C | PD        | 200      | mW    |
| Derate above 25°C   |           | 1.57     | mW/°C |
| Thermal Resistance, Junction to Ambient                     | RθJA      | 635      | °C/W  |
| Junction and Storage Temperature Range                      | TJ , Tstg | -55~+150 | °C    |

1. FR-5 Minimum Pad

**5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

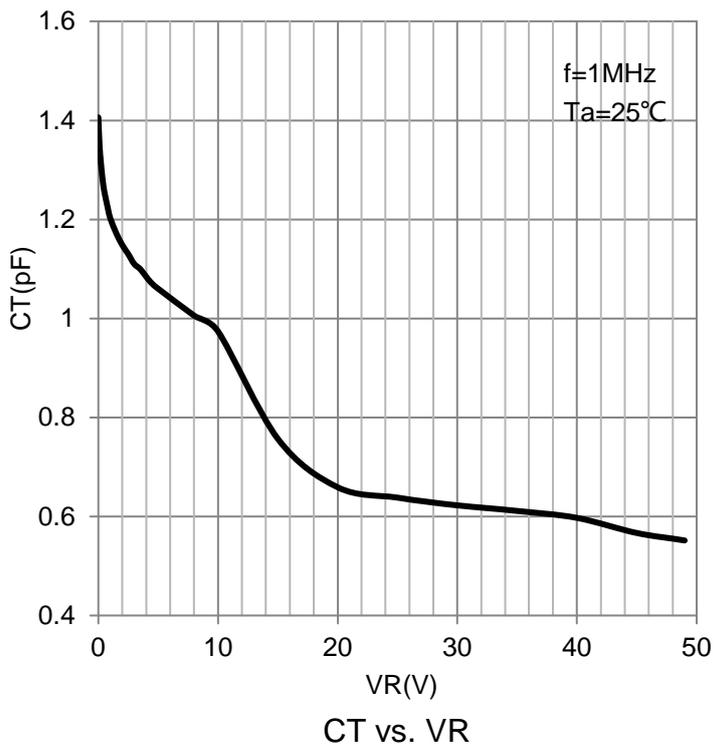
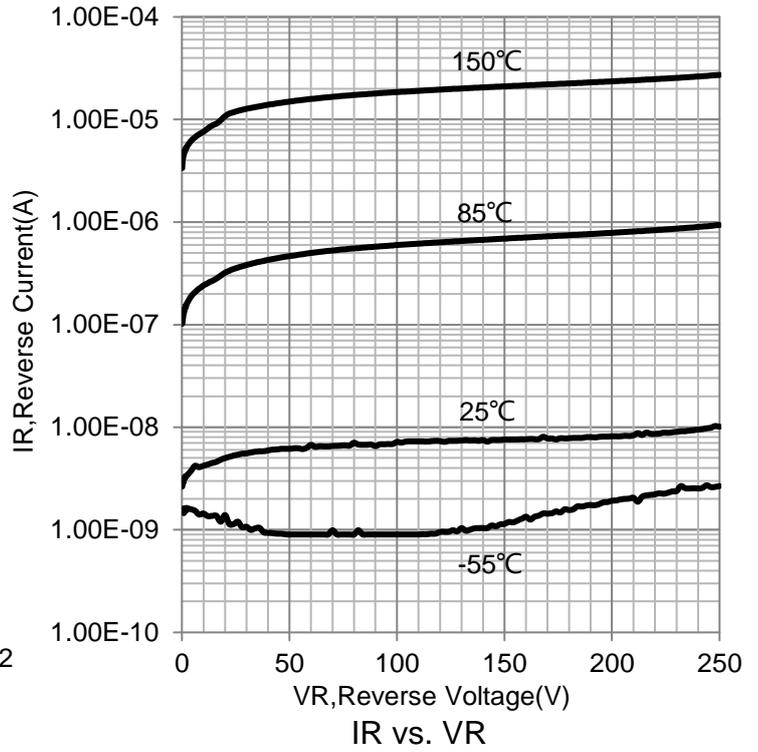
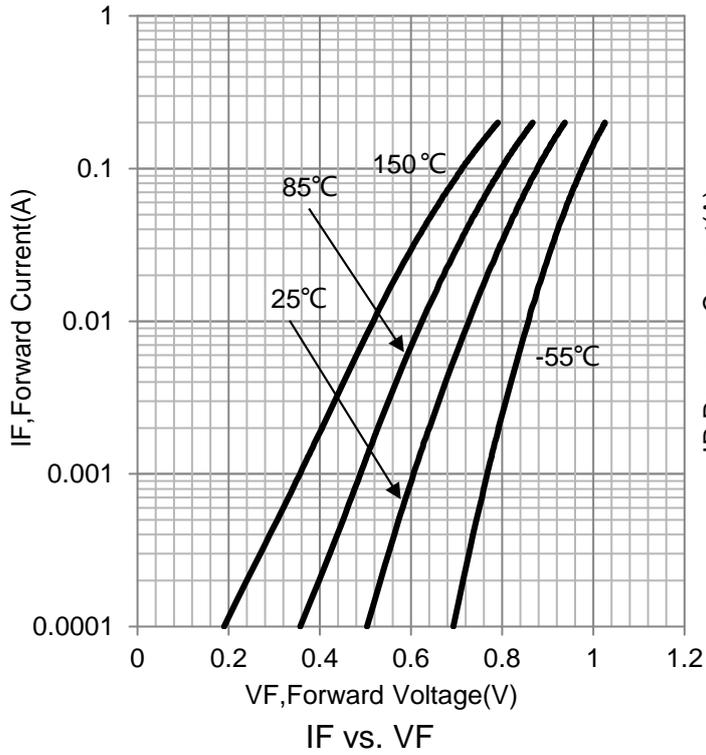
| CHARACTERISTICS   | Symbol | Min    | Max          | Unit |
|---|--------|--------|--------------|------|
| Reverse Voltage Leakage Current<br>(VR=200V)<br>(VR=200V, TJ = 150°C) | IR     | -<br>- | 0.1<br>100   | μA   |
| Reverse Breakdown Voltage<br>(IBR = 100 μA)                           | VBR    | 250    | -            | V    |
| Forward voltage<br>(IF =100mA)<br>(IF =200mA)                         | VF     | -<br>- | 1000<br>1250 | mV   |
| Diode capacitance<br>(f=1MHz, VR =0)                                  | Cd     | -      | 5            | pF   |
| Reverse Recovery Time<br>(IF = IR = 30mA, RL = 100Ω)                  | Trr    | -      | 50           | nS   |



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (IF) of 30 mA.  
 2. Input pulse is adjusted so IR(peak) is equal to 30 mA.  
 3. tp >> trr

**Figure 1. Recovery Time Equivalent Test Circuit**

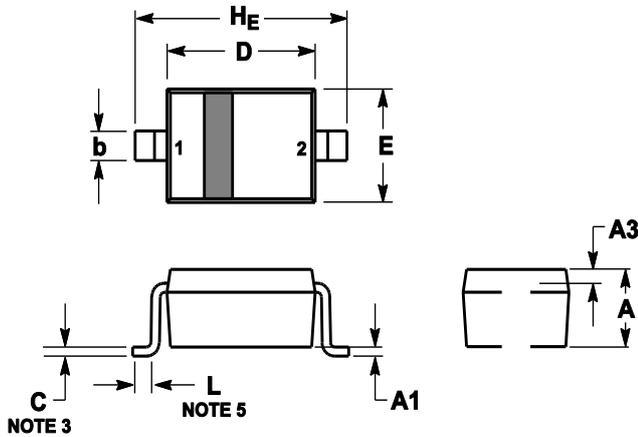
**6.ELECTRICAL CHARACTERISTICS CURVES**



## 7. OUTLINE AND DIMENSIONS

Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



| DIM            | MILLIMETERS |      |       | INCHES   |       |       |
|----------------|-------------|------|-------|----------|-------|-------|
|                | MIN         | NOM  | MAX   | MIN      | NOM   | MAX   |
| A              | 0.8         | 0.9  | 1     | 0.031    | 0.035 | 0.04  |
| A1             | 0           | 0.05 | 0.1   | 0        | 0.002 | 0.004 |
| A3             | 0.15REF     |      |       | 0.006REF |       |       |
| b              | 0.25        | 0.32 | 0.4   | 0.01     | 0.012 | 0.016 |
| C              | 0.089       | 0.12 | 0.177 | 0.003    | 0.005 | 0.007 |
| D              | 1.6         | 1.7  | 1.8   | 0.062    | 0.066 | 0.07  |
| E              | 1.15        | 1.25 | 1.35  | 0.045    | 0.049 | 0.053 |
| L              | 0.08        |      |       | 0.003    |       |       |
| H <sub>E</sub> | 2.3         | 2.5  | 2.7   | 0.09     | 0.098 | 0.105 |

## 8. SOLDERING FOOTPRINT

