

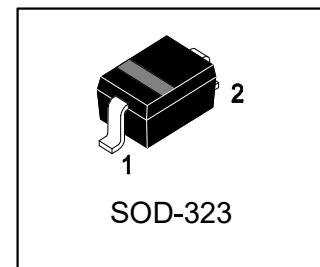
BAS20H

S-BAS20H

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 ORDERING INFORMATION

| Device | Marking | Shipping |
|--------|---------|----------------|
| BAS20H | JR | 3000/Tape&Reel |

3. MAXIMUM RATINGS (Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|----------------------------|------------|--------|------|
| Continuous Reverse Voltage | VR | 200 | V |
| Peak Forward Current | IF | 200 | mA |
| Peak Forward Surge Current | IFM(surge) | 625 | mA |

4.THERMAL CHARACTERISTICS

| Characteristic | Symbol | Limits | Unit |
|--|---------------------|----------|-------|
| Total Device Dissipation FR-5 Board(Note 1) TA = 25°C | PD | 200 | mW |
| Derate above 25°C | | 1.57 | mW/°C |
| Thermal Resistance Junction to Ambient | R _{θJA} | 635 | °C/W |
| Junction and Storage Temperature Range | T _{J,Tstg} | -55~+150 | °C |

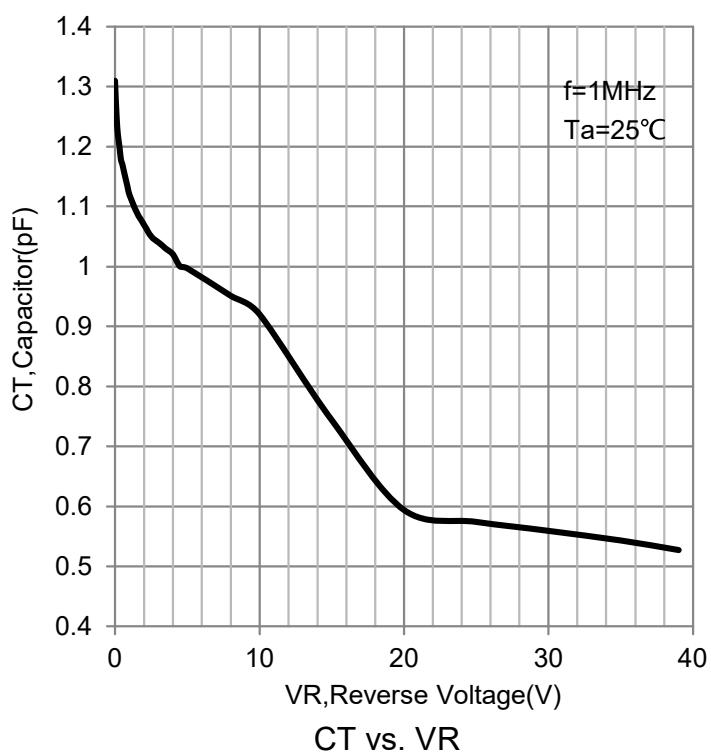
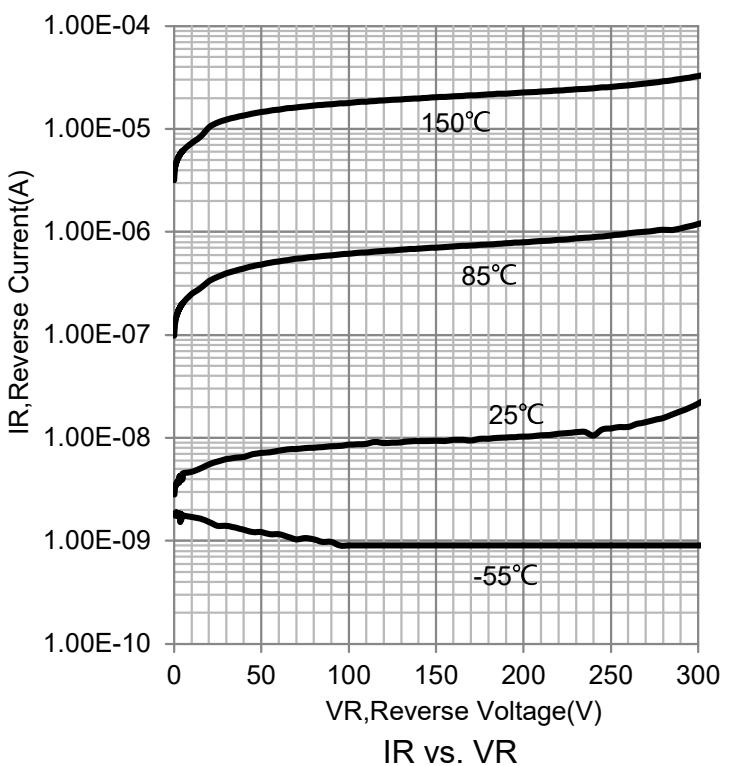
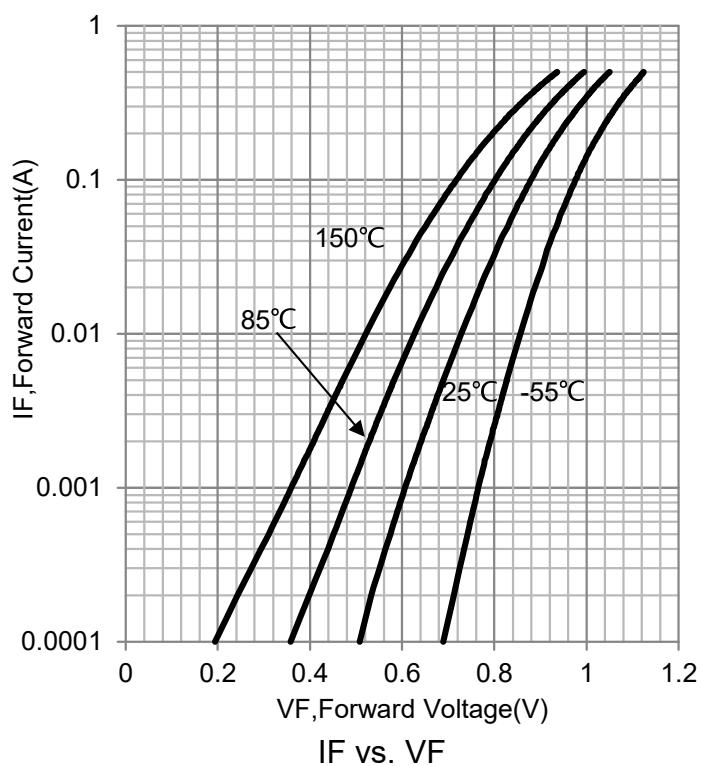
1.FR-5 Minimum Pad

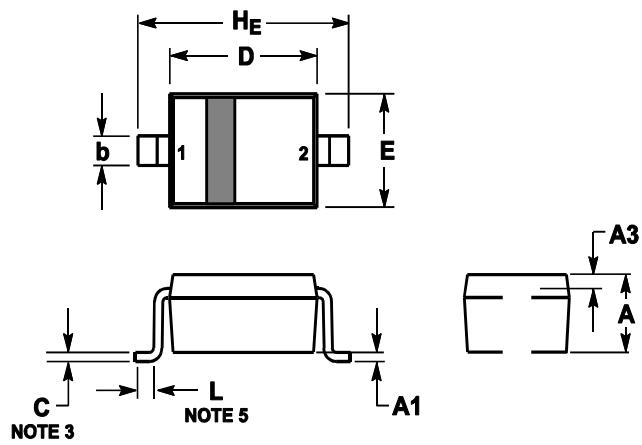
5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

| Characteristic | Symbol | Min. | Typ. | Max. | Unit |
|---|--------|------|------|--------------|------|
| Reverse Voltage Leakage Current (VR = 200 V) (VR = 200 V, TJ = 150°C) | IR | - | - | 1 | µA |
| Reverse Breakdown Voltage (IBR = 100 µA) | V(BR) | 200 | - | - | V |
| Forward voltage (IF =100mA) (IF =200mA) | VF | - | - | 1000 1250 | mV |
| Diode Capacitance (VR = 0, f = 1.0 MHz) | CD | - | - | 5 | pF |
| Reverse Recovery Time (IF = IR = 30 mA, RL = 100 Ω) | trr | - | - | 50 | ns |



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_E | 2.3 | 2.5 | 2.7 | 0.09 | 0.098 | 0.105 |

8.SOLDERING FOOTPRINT