

Features

Extremely Fast Switching Speed Low Forward Voltage Pb-Free Package is Available



SOD-323

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) | | |
|------------|---------|---------|----------|--|--|
| HBAT54HT1G | SOD-323 | JV | 3000 | | |



Maxmim Ratings (Ta=25 unless otherwise noted)

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|---|--------|------------|---------------|--|
| Parameter | Symbol | Rating | Unit | |
| Reverse Voltage | VRM | 30 | V | |
| Forward Current | lF | 200 | | |
| Repetitive Peak Forward Current | IFRM | 300 | mA | |
| Non-Repetitive Peak Forward Current (t < 1s) | IFSM | 600 | | |
| Power Dissipation | Pd | 200 | mW | |
| -Derate above 25°C | | 1.57 | mW/℃ | |
| Thermal Resistance Junction to Ambient | R θ JA | 635 | °C/W | |
| Junction Temperature | TJ | 150 | °C | |
| Storage Temperature range | Tstg | -55 to 150 | ${\mathbb C}$ | |

Electrcal Charcteristics (Ta=25 unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Тур | Max | Unit |
|---------------------------------|--------|--------------------------------|-----|-----|------|------|
| Reverse breakdown voltage | VR | IR= 10 uA | 30 | | | |
| | | IF= 0.1 mA | | | 0.24 | |
| | | IF= 1 mA | | | 0.32 | V |
| Forward voltage | VF | IF= 10 mA | | | 0.4 | V |
| | | IF= 30 mA | | | 0.5 | |
| | | IF= 100 mA | | | 8.0 | |
| Reverse voltage leakage current | lr | V _R = 25 V | | | 2 | uA |
| Junction capacitance | Cj | V _R = 1 V, f= 1 MHz | | | 10 | pF |
| Reverse recovery time | trr | IF=IR=10mA,IR(REC) = 1mA | | | 5 | ns |



Typical Characteristics

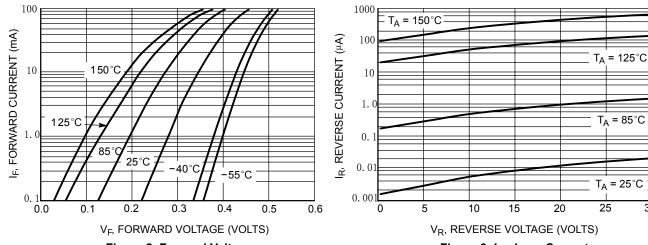


Figure 2. Forward Voltage

Figure 3. Leakage Current

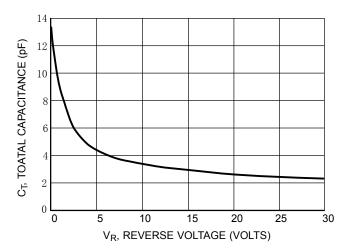
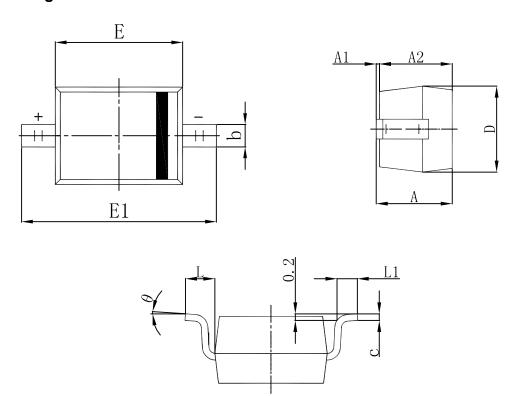


Figure 4. Total Capacitance



SOD-323 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | | |
|--------|---------------------------|-------|----------------------|-------|--|
| | Min | Max | Min | Max | |
| Α | | 1.100 | | 0.043 | |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 | |
| A2 | 0.800 | 1.000 | 0.031 | 0.039 | |
| b | 0.250 | 0.350 | 0.010 | 0.014 | |
| С | 0.080 | 0.150 | 0.003 | 0.006 | |
| D | 1.200 | 1.400 | 0.047 | 0.055 | |
| E | 1.600 | 1.800 | 0.063 | 0.071 | |
| E1 | 2.500 | 2.750 | 0.098 | 0.108 | |
| L | 0.475 REF | | 0.019 REF | | |
| L1 | 0.250 | 0.400 | 0.010 | 0.016 | |
| θ | 0° | 8° | 0° | 8° | |



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