

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

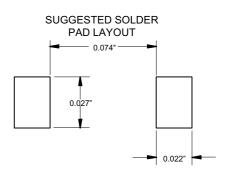
Phone: (818) 701-4933 Fax: (818) 701-4939

BAT54WS

200mWatt, 30Volt Schottky Barrier Diode

SOD-323

| DIMENSIONS | | | | | | | |
|------------|--------|------|------|------|------|--|--|
| DIM | INCHES | | MM | | NOTE | | |
| | MIN | MAX | MIN | MAX | | | |
| Α | .090 | .107 | 2.30 | 2.70 | | | |
| В | .063 | .071 | 1.60 | 1.80 | | | |
| C | .045 | .053 | 1.15 | 1.35 | | | |
| D | .031 | .045 | 0.80 | 1.15 | | | |
| E | .010 | .016 | 0.25 | 0.40 | | | |
| O | .004 | .018 | 0.10 | 0.45 | | | |
| Н | .004 | .010 | 0.10 | 0.25 | | | |
| J | | .006 | | 0.15 | | | |



Features

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High Reliability
- Low Forward Voltage and Low Reverse Current
- Small Surface Mount Type
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"
- Device Marking: L9/JV

Maximum Ratings

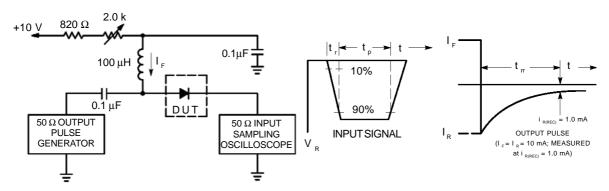
| Continuous Reverse Voltage | | 30V |
|--|--|-------------------|
| Continuous Forward Current | | 200mA |
| Repetitive Peak Forward Current | | 300mA |
| Non-Repetitive Peak Forward Current t<1s | | 600mA |
| Total Power Dissipation @ T _A = 25°C Derate above 25°C | | 200mW 1.8mW/°C |
| Junction Temperature | | 125°C |
| Thermal Resistance Junction to Ambient | | 500°C/W |
| Storage Temperature Range | | -55°C to 125°C |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Ratings | Symbol | Max. | Notes |
|--|-----------------|--|---|
| Forward Voltage at $I_F = 0.1 \text{mA}$ $I_F = 1 \text{mA}$ $I_F = 10 \text{mA}$ $I_F = 30 \text{mA}$ $I_F = 100 \text{mA}$ | V _F | 240mV 320mV 400mV 500mV 1000mV | |
| Reverse Current | I _R | 2.0µA | V _R = 25V |
| Capacitance | CJ | 10 pF | Measured at 1.0MHz, V _R =1.0V |
| Reverse Breakdown Voltage | $V_{(BR)}$ | >30V | I _R =100μA |
| Reverse Recovery Time | t _{rr} | 5.0ns | I _F =10mA,I _R =10mA to 1mA, R _L =100 Ω |

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Notes: 1. A 2.0 k Ω variable resistor adjusted for a Forward Current (I $_{\rm F}$) of 10mA.

- 2. Input pulse is adjusted so I $_{\mbox{\scriptsize R(peak)}}$ is equal to 10mA.
- $3.t_p * t_r$

Figure 1. Recovery Time Equivalent Test Circuit

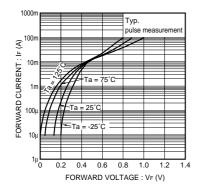


Fig. 2 Forward characteristics

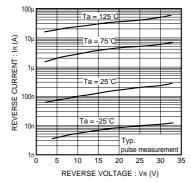


Fig. 3 Reverse characteristics

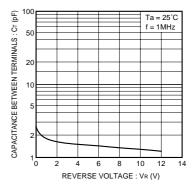


Fig. 4 Capacitance between terminals characteristics



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Ordering Information:

| Device | Packing | | |
|----------------|-----------------------|--|--|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel | | |

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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