



Micro Commercial Components



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BAT54WX

Features

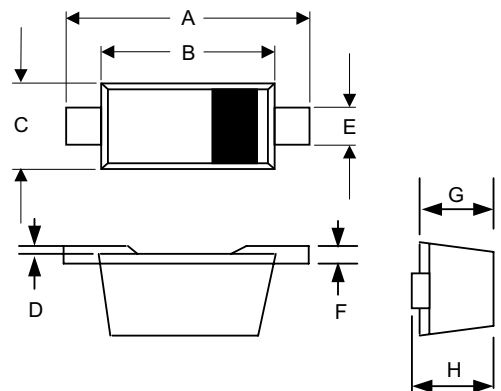
- Extremely-Fast Switching Speed
- Low Forward Voltage Drop
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking Code: JV
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

200mWatt, 30Volt Schottky Diodes

Maximum Ratings

| Symbol | Rating | Rating | Unit |
|-----------------|--|-------------|---------------|
| V_{RRM} | Peak Repetitive Reverse Voltage | 30 | V |
| V_{RWM} | Working Peak Reverse Voltage | | |
| V_R | DC Blocking Voltage | | |
| I_F | Forward Current | 200 | mA |
| $R_{\theta JA}$ | Thermal Resistance Junction to Ambient | 635 | $^{\circ}C/W$ |
| P_D | Power dissipation | 200 | mW |
| T_J | Junction Temperature | -65 to +150 | $^{\circ}C$ |
| T_{STG} | Storage Temperature | -65 to +150 | $^{\circ}C$ |
| I_{FRM} | Repetitive peak forward current | 300 | mA |
| I_{FSM} | Peak forward current (9t=1us) | 600 | mA |

SOD-523

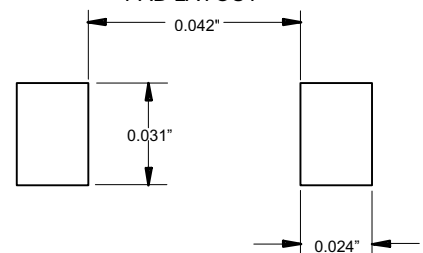


Electrical Characteristics @ 25°C Unless Otherwise Specified

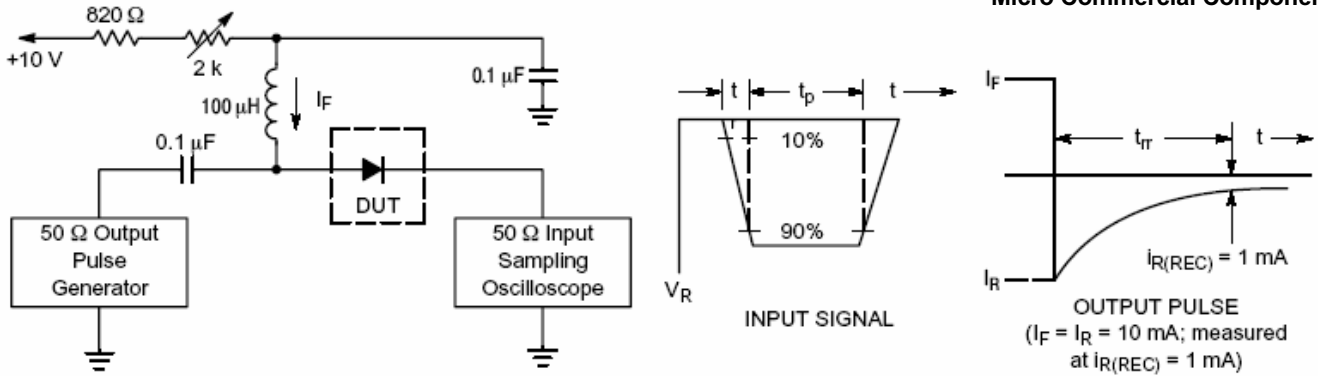
| Symbol | Parameter | Min | Max | Test Conditions |
|------------|---------------------------------|-----|---|---|
| $V_{(BR)}$ | Reverse Breakdown Voltage | 30V | | $I_R=10 \mu A$ |
| I_R | Reverse Voltage Leakage Current | | 2 μA | $V_R=25V$ |
| V_F | Forward Voltage | | 0.24V 0.50V 0.80V 0.32V 0.40V | $I_F=0.1mA$ $I_F=30mA$ $I_F=100mA$ $I_F=1.0mA$ $I_F=10mA$ |
| C_T | Total Capacitance | | 10pF | $V_R=1V, f=1MHZ$ |
| t_{rr} | Reverse Recovery Time | | 5ns | $I_{FR}=10mA, I_R=10mA \sim 1mA$ |

| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .059 | .067 | 1.50 | 1.70 | |
| B | .043 | .051 | 1.10 | 1.30 | |
| C | .030 | .033 | 0.75 | 0.85 | |
| D | .001 | .003 | 0.01 | 0.07 | |
| E | .010 | .014 | 0.25 | 0.35 | |
| F | .003 | .006 | 0.08 | 0.15 | |
| G | .020 | .028 | 0.50 | 0.70 | |
| H | .020 | .031 | 0.51 | 0.77 | |

SUGGESTED SOLDER PAD LAYOUT



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- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
 2. Input pulse is adjusted so $I_{R(\text{peak})}$ is equal to 10 mA.
 3. $t_p \gg t_{tr}$

Figure 1. Recovery Time Equivalent Test Circuit

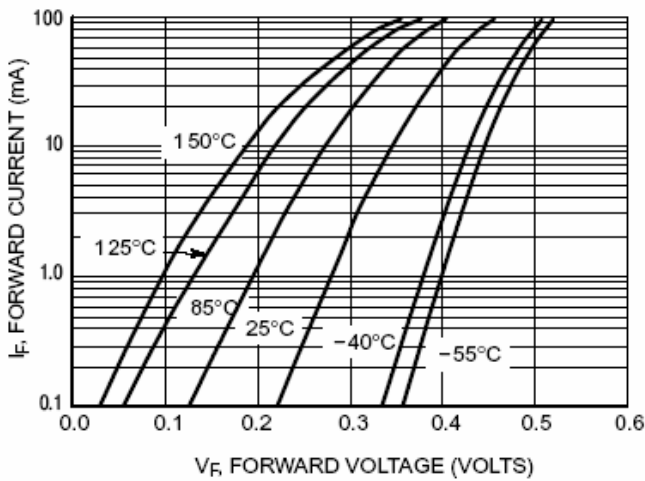


Figure 2. Forward Voltage

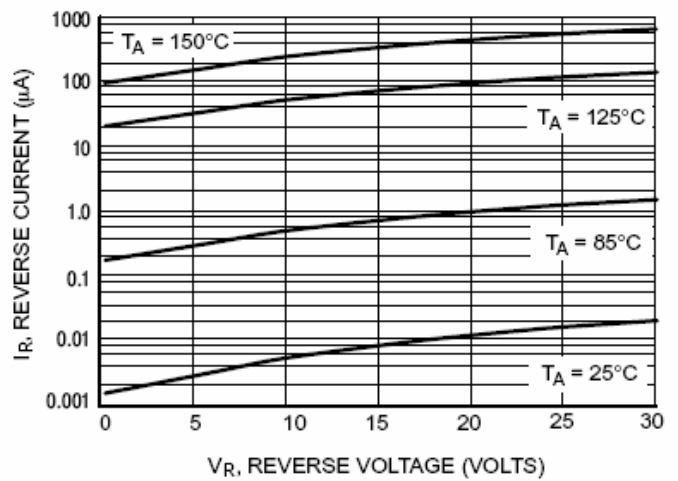


Figure 3. Leakage Current

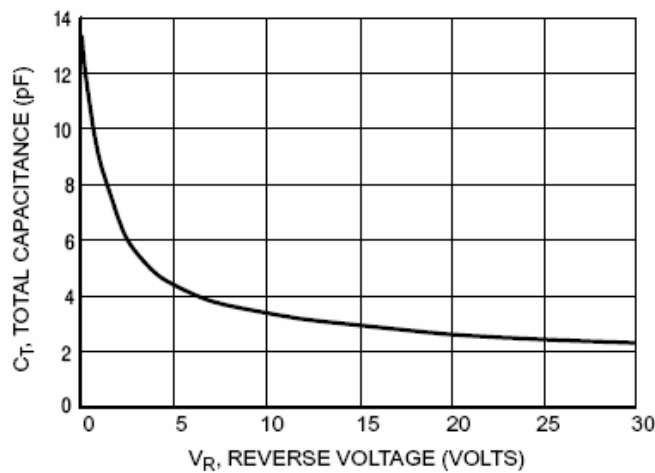


Figure 4. Total Capacitance



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Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 8Kpcs/Reel |

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

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