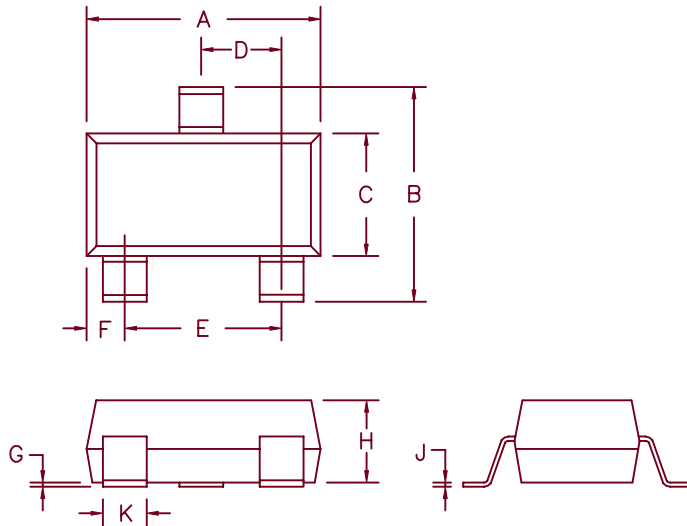


# 200 mW Schottky Diode

## BAT54, BAT54A, BAT54C, BAT54S



| Dim. | Inches  |         | Millimeter |         | Notes |
|------|---------|---------|------------|---------|-------|
|      | Minimum | Maximum | Minimum    | Maximum |       |
| A    | .110    | .120    | 2.80       | 3.04    |       |
| B    | .083    | .098    | 2.10       | 2.64    |       |
| C    | .047    | .055    | 1.20       | 1.40    |       |
| D    | .035    | .041    | 0.89       | 1.03    |       |
| E    | .070    | .081    | 1.78       | 2.05    |       |
| F    | .018    | .024    | 0.45       | 0.06    |       |
| G    | .0005   | .0039   | 0.013      | 0.100   |       |
| H    | .035    | .044    | 0.89       | 1.12    |       |
| J    | .003    | .007    | 0.085      | 0.18    |       |
| K    | .015    | .020    | 0.37       | 0.51    |       |

SOT-23

Microsemi  
Catalog Number

BAT54  
BAT54A  
BAT54C  
BAT54S

Peak Reverse  
Voltage

30V  
30V  
30V  
30V

Pin  
Configuration

Figure 1  
Figure 2  
Figure 3  
Figure 4

Type

Single  
Dual  
Dual  
Dual

Pin Configuration – Top View

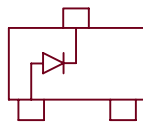


Figure 1 54

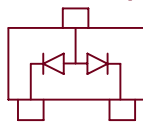


Figure 2 54A

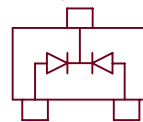


Figure 3 54C

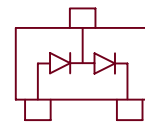


Figure 4 54S

### Electrical Characteristics

Total Power Dissipation  
Maximum forward voltage drop  
Maximum reverse current  
Non-repetitive peak forward current  
Typical junction capacitance  
Reverse recovery time

$P_D$  200 mW  
 $V_{FM}$  0.32 Volts  
 $V_{FM}$  0.50 Volts  
 $I_R$  2.0  $\mu$ A  
 $I_{FSM}$  600 mA  
 $C_J$  10 pF  
 $t_{rr}$  5 nS

$T_A = 25^\circ\text{C}$   
 $I_{FM} = 1\text{mA}$ ,  $T_J = 25^\circ\text{C}^*$   
 $I_{FM} = 30\text{mA}$ :  $T_J = 25^\circ\text{C}^*$   
 $V_R = 25\text{V}$ ,  $T_J = 25^\circ\text{C}$   
Pulse  $\leq 1$  second  
1.0 MHz,  $V_R = 1.0\text{V}$ ,  $25^\circ\text{C}$   
 $I_F = I_R = 10\text{mA}$ ,  $I_{(REC)} = 1\text{mA}$

\*Pulse test: Pulse width 300  $\mu$ sec, Duty cycle 2%

### Thermal and Thermal Characteristics

Storage temperature range  
Operating junction temp range  
Maximum thermal resistance

$T_{STG}$   
 $T_J$   
 $R_{\theta JA}$

$-55^\circ\text{C}$  to  $150^\circ\text{C}$   
 $-55^\circ\text{C}$  to  $125^\circ\text{C}$   
 $160^\circ\text{C/W}$  Junction to ambient

3-25-02 Rev. 1