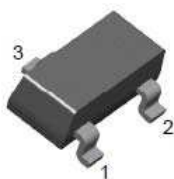
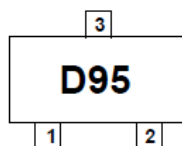


# BAR43/A/C/S Schottky Diodes



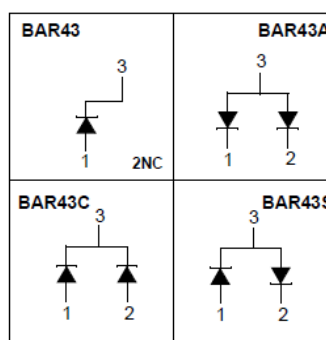
SOT-23



MARKING

BAR43 D95 BAR43A DB1  
BAR43C DB2 BAR43S DA5

Connection Diagram



## Absolute Maximum Ratings\* $T_A=25^\circ\text{C}$ unless otherwise noted

| Symbol      | Parameter                                                       | Value       | Units            |
|-------------|-----------------------------------------------------------------|-------------|------------------|
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage                              | 30          | V                |
| $I_{F(AV)}$ | Average Rectified Forward Current                               | 200         | mA               |
| $I_{FSM}$   | Non Repetitive Peak Forward Current<br>Pulse Width = 1.0 second | 750         | mA               |
| $T_J$       | Operating Junction Temperature                                  | 150         | $^\circ\text{C}$ |
| $T_{STG}$   | Storage Temperature Range                                       | -55 to +150 | $^\circ\text{C}$ |

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

## Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted

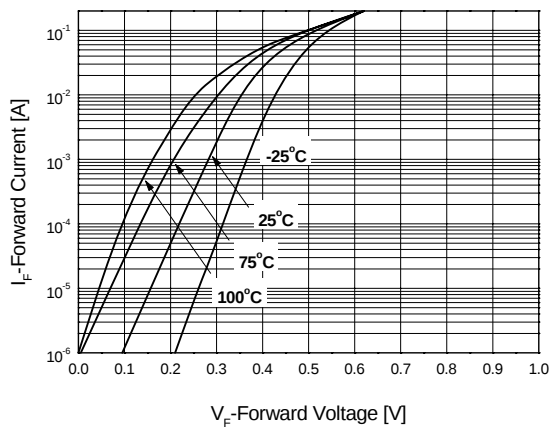
| Symbol          | Parameter                               | Value | Units              |
|-----------------|-----------------------------------------|-------|--------------------|
| $P_D$           | Power Dissipation                       | 290   | mW                 |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 430   | $^\circ\text{C/W}$ |

# **Electrical Characteristics** $T_A=25^{\circ}\text{C}$ unless otherwise noted

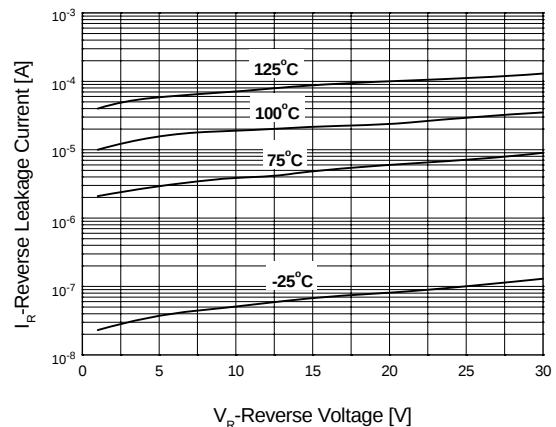
| Symbol                                                                                             | Parameter             | Test Conditions                                                        | Min. | Max.              | Units         |
|----------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------|------|-------------------|---------------|
| $V_R$                                                                                              | Breakdown Voltage     | $I_R = 100\mu\text{A}$                                                 | 30   |                   | V             |
| $V_F$                                                                                              | Forward Voltage       | $I_F = 2.0\text{mA}$<br>$I_F = 15\text{mA}$<br>$I_F = 100\text{mA}$    | 260  | 330<br>450<br>0.8 | mV<br>mV<br>V |
| $I_R$                                                                                              | Reverse Leakage       | $V_R = 25\text{V}$<br>$V_R = 25\text{V}, T_A=100^{\circ}\text{C}$      |      | 0.5<br>100        | $\mu\text{A}$ |
| $t_{rr}$                                                                                           | Reverse Recovery Time | $I_F = I_R = 100\text{mA}, I_{RR} = 1.0\text{mA}$<br>$R_L = 100\Omega$ |      | 5.0               | ns            |
| Minimum Detection Recovery Time $I_F = I_R = 100\text{mA}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$ |                       |                                                                        | 80%  |                   |               |

## **Typical Performance Characteristics**

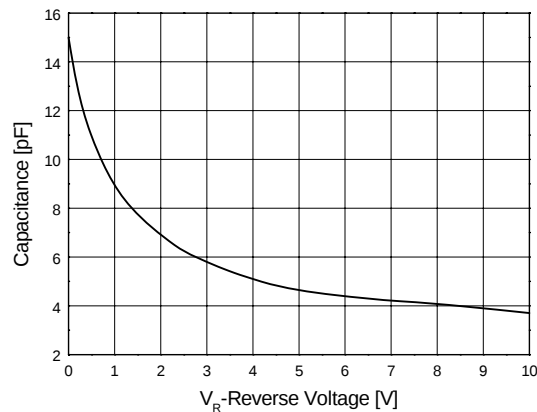
**Figure 1. Forward Voltage vs Temperature**



**Figure 2. Reverse Leakage Current vs Temperature**



**Figure 3. Capacitance vs Reverse Bias Voltage**





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