

BAT54/A/C/S

Rev.1 Jun.-2024

/ Descriptions

SOT-23

Schottky diodes in a SOT-23 Plastic Package.

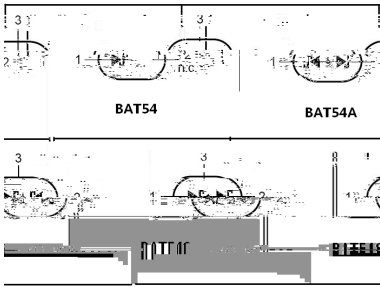
/ Features

Schottky diodes, HF Product.

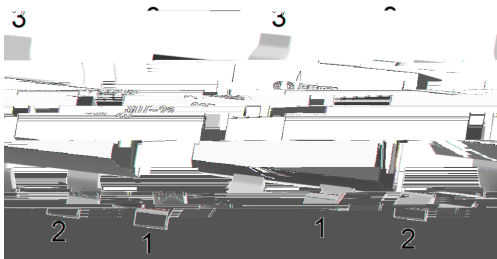
/ Applications

Low forward and reverse recovery times.

/ Equivalent Circuit



/ Pinning



PIN: See Equivalent Circuit.

/ Marking

| Model | BAT54 | BAT54A | BAT54C | BAT54S |
|---------|-------|--------|--------|--------|
| Marking | HL4P | HL42 | HL43 | HL44 |

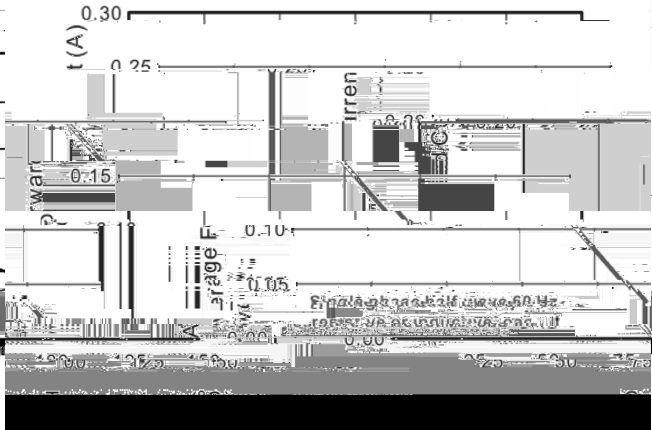
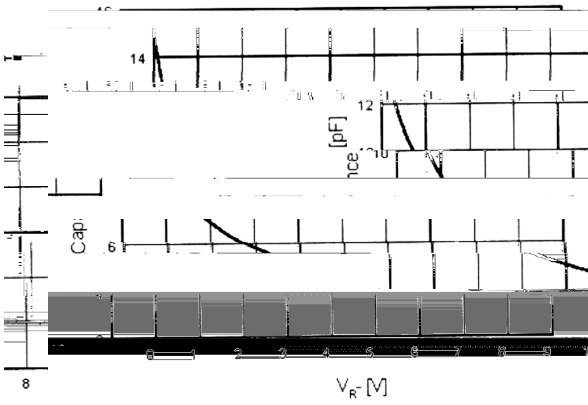
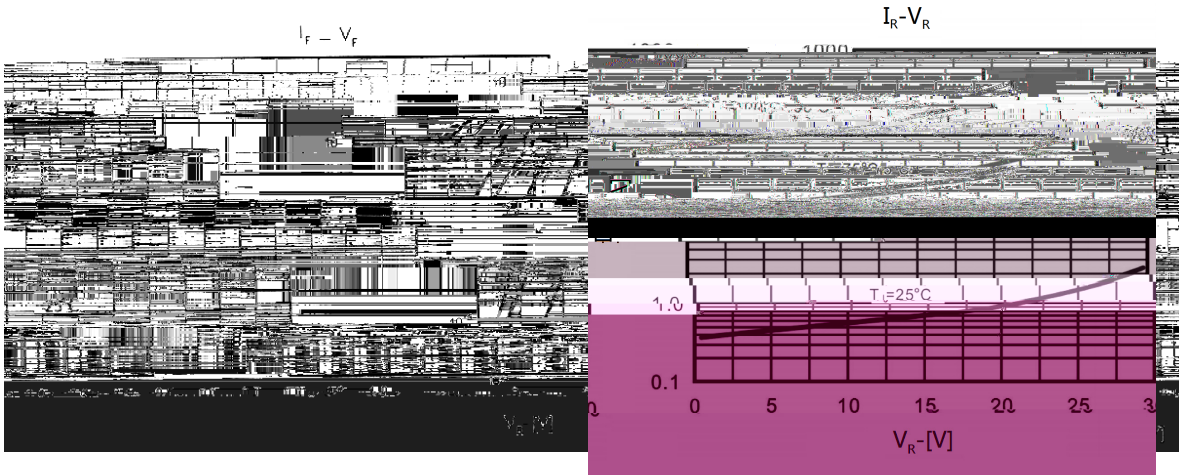
/ Absolute Maximum Ratings(Ta=25)

| Parameter | Symbol | Rating | Unit |
|---|-------------|---------|------|
| Repetitive Reverse Voltage | V_{RRM} | 30 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 200 | mA |
| Non-repetitive Peak Forward Surge Current | I_{FSM} | 600 | mA |
| Power Dissipation | P_D | 290 | mW |
| Thermal Resistance, Junction to Ambient | R_{JA} | 430 | /W |
| Junction Temperature | T_j | 125 | |
| Storage Temperature Range | T_{stg} | -55 150 | |

/ Electrical Characteristics(Ta=25)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-------------------------------|----------|--|-----|-----|-----|---------|
| Breakdown Voltage | V_R | $I_R=10\mu A$ | 30 | | | V |
| Forward Voltage | V_F | $I_F=0.1mA$ | | | 240 | mV |
| | | $I_F=1.0mA$ | | | 320 | mV |
| | | $I_F=10mA$ | | | 400 | mV |
| | | $I_F=30mA$ | | | 500 | mV |
| | | $I_F=100mA$ | | | 0.8 | V |
| Instantaneous Reverse Current | I_R | $V_R=25V$ | | | 2.0 | μA |
| Total Capacitance | C_T | $V_R=1.0V$ $f=1.0MHz$ | | | 10 | pF |
| Reverse Recovery Time | t_{rr} | $I_F=10mA$ $I_{RR}=1.0mA$ $R_L=100$ | | | 5.0 | ns |

/ Electrical Characteristic Curve



/ Package Dimensions

SOT-23

单位: mm

