

Dual Series Schottky Barrier Diodes

These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping. Extremely low forward voltage reduces conduction loss. Miniature surface mount package is excellent for hand held and portable applications where space is limited.

• Extremely Fast Switching Speed

• Low Forward Voltage — 0.35 Volts (Typ) @ I _F = 10 mAdc





DIODES

CASE 318-08, STYLE 11 SOT-23 (TO-236AB)

DEVICE MARKING

BAT54S = LD3

MAXIMUM RATINGS (T₁ = 125°C unless otherwise noted)

| Rating | Symbol | Value | Unit |
|---------------------------|------------------|-------------|-------|
| Reverse Voltage | V _R | 30 | Volts |
| Forward Power Dissipation | P _F | | |
| @ T ^= 25°C | | 225 | mW |
| Derate above 25°C | | 1.8 | mW/°C |
| Operating Junction | Τ | | |
| Temperature Range | | -55 to +125 | °C |
| Storage Temperature Range | T _{stg} | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS (T $_A$ = 25°C unless otherwise noted) (EACH DIODE)

| Characteristic | Symbol | Min | Тур | Max | Unit |
|--|----------------|-----|------|------|-------|
| Reverse Breakdown Voltage (I $_{R}$ = 10 μ A) | V (BR)R | 30 | — | — | Volts |
| Total Capacitance (V _R = 1.0 V, f = 1.0 MHz) | C _T | _ | 7.6 | 10 | pF |
| Reverse Leakage (V _R = 25 V) | I _R | — | 0.5 | 2.0 | μAdc |
| Forward Voltage (I _F = 0.1 mAdc) | V _F | — | 0.22 | 0.24 | Vdc |
| Forward Voltage (I _F = 30 mAdc) | V _F | — | 0.41 | 0.5 | Vdc |
| Forward Voltage (I _F = 100 mAdc) | V _F | _ | 0.52 | 1.0 | Vdc |
| Reverse Recovery Time | | _ | _ | 5.0 | ns |
| (I _F = I _R = 10 mAdc, I _{R(REC)} = 1.0 mAdc) Figure 1 | l rr | | | | |
| Forward Voltage (I _F = 1.0 mAdc) | V _F | — | 0.29 | 0.32 | Vdc |
| Forward Voltage (I _F = 10 mAdc) | V _F | _ | 0.35 | 0.40 | Vdc |