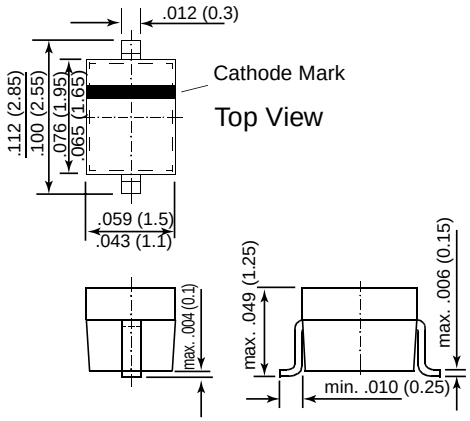
# SD104AWS THRU SD104CWS

## SCHOTTKY DIODES

**SOD-323**




*Dimensions in inches and (millimeters)*

## FEATURES

- Low turn-on voltage
- Low capacitance
- Ultrafast switching
- Microminiature plastic package
- Single, double, and ring balanced mixer in narrow-band receivers up to 1 GHz
- Detectors and fast switching up to 1 GHz
- Phase detectors
- Suitable for radios, TV, CTV, and hyper band tuners

## MECHANICAL DATA

**Case:** SOD-323 Plastic Package
**Weight:** approx. 0.004g

## MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | SYMBOL | VALUE | UNIT |
|---|---|---|---|---|
| Continuous Reverse Voltage | SD104AWS | $V_R$ | 20 | Volts |
| | SD104BWS | $V_R$ | 15 | Volts |
| | SD104CWS | $V_R$ | 10 | Volts |
| Forward Current | | $I_F$ | 30 | mA |
| Power Dissipation $T_C$= 25°C | | $P_{tot}$ | 150 (NOTE 1) | mW |
| Junction Temperature | | $T_j$ | 125 | °C |
| Storage Temperature Range | | $T_S$ | -55 to + 150 | °C |
| Thermal Resistance Junction to Ambient Air | | $R_{\Theta JA}$ | 650 (NOTE 1) | K/W |

**NOTES:**
(1) Valid provided that electrodes are kept at ambient temperature



GENERAL SEMICONDUCTOR®

# SD104AWS THRU SD104CWS

## ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | SYMBOL | MIN. | TYP. | MAX. | UNIT |
|---|---|---|---|---|---|---|
| Reverse Breakdown Voltage | SD104AWS | $V_R$ | 20 | - | - | Volts |
| at $I_R$ = 10 µA | SD104BWS | $V_R$ | 15 | - | - | Volts |
| | SD104CWS | $V_R$ | 10 | - | - | Volts |
| Leakage Current | | | | | | |
| at $V_R$ = 15 V | SD104AWS | $I_R$ | - | - | 500 | nA |
| at $V_R$ = 10 V | SD104BWS | $I_R$ | - | - | 500 | nA |
| at $V_R$ = 5 V | SD104CWS | $I_R$ | - | - | 500 | nA |
| Forward Voltage | | | | | | |
| at $I_F$ = 0.1 mA | SD104AWS | $V_F$ | - | - | 350 | mV |
| | SD104BWS | $V_F$ | - | - | 325 | mV |
| | SD104CWS | $V_F$ | - | - | 310 | mV |
| at $I_F$ = 1.0 mA | SD104AWS | $V_F$ | - | - | 450 | mV |
| | SD104BWS | $V_F$ | - | - | 425 | mV |
| | SD104CWS | $V_F$ | - | - | 400 | mV |
| at $I_F$ = 10 mA | SD104AWS | $V_F$ | - | - | 600 | mV |
| | SD104BWS | $V_F$ | - | - | 580 | mV |
| | SD104CWS | $V_F$ | - | - | 565 | mV |
| Diodes Capacitance | | | | | | |
| at $V_R$ = 0 V, f = 1 MHz | SD104AWS | $C_D$ | - | - | 0.8 | pF |
| | SD104BWS | $C_D$ | - | - | 0.9 | pF |
| | SD104CWS | $C_D$ | - | - | 1.0 | pF |

**NOTES:**
(1) Valid provided that electrodes are kept at ambient temperature