

1A1 THRU 1A7

SILICON RECTIFIERS

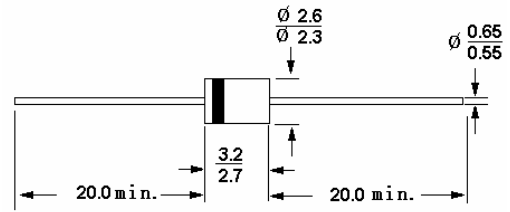
Voltage Range – 50 to 1000 Volts

Current – 1.0 Amperes

R-1

Features

- High reliability
- Low leakage
- Low forward voltage drop
- High current capability



Dimensions in mm

Mechanical Data

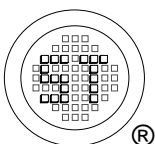
- **Case:** Molded plastic black body
- **Lead:** MIL-STD 202E method 208C guaranteed.
- **Mounting Position:** Any

Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

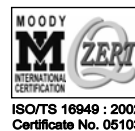
| | Symbols | 1A1 | 1A2 | 1A3 | 1A4 | 1A5 | 1A6 | 1A7 | Units |
|---|-----------------------|-------------|-----|-----|-----|-----|-----|------|--------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current at $T_A = 25^\circ C$ | I_o | 1.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 25 | | | | | | | A |
| Maximum instantaneous forward voltage at 1A DC | V_F | 1.1 | | | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage | @ $T_A = 25^\circ C$ | 5.0 | | | | | | | uA |
| | @ $T_A = 100^\circ C$ | 50 | | | | | | | |
| Maximum full load reverse current full cycle average 0.375" (9.5mm) lead length at $T_L = 75^\circ C$ | | 100 | | | | | | | uA |
| Typical junction capacitance (note) | C_J | 15 | | | | | | | pF |
| Typical thermal resistance | $R_{\theta JA}$ | 60 | | | | | | | $^\circ C/W$ |
| Operating and storage temperature range | T_J, T_S | -65 to +150 | | | | | | | $^\circ C$ |

Note: Measured at 1MHz and applied reverse voltage of 4V.



SEMTECH ELECTRONICS LTD.

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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116

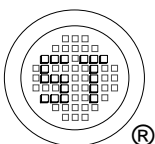
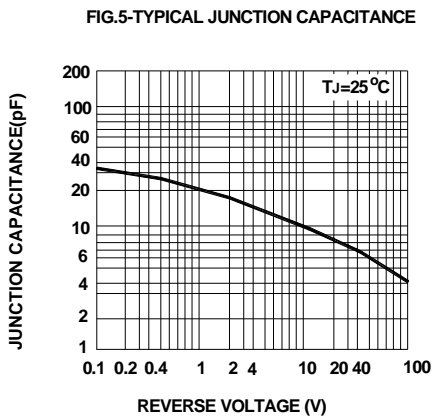
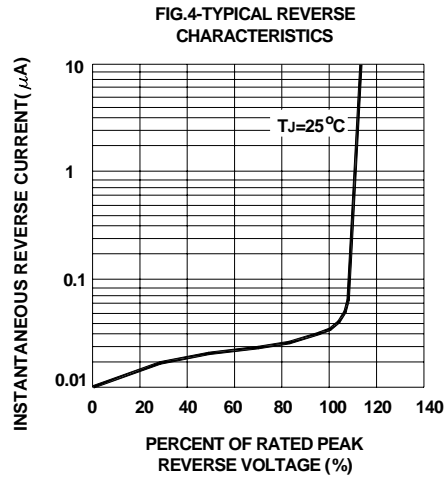
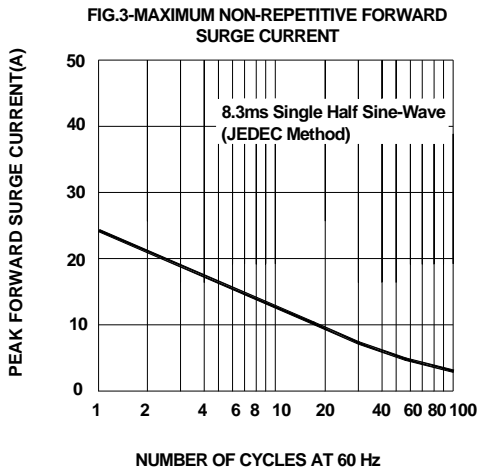
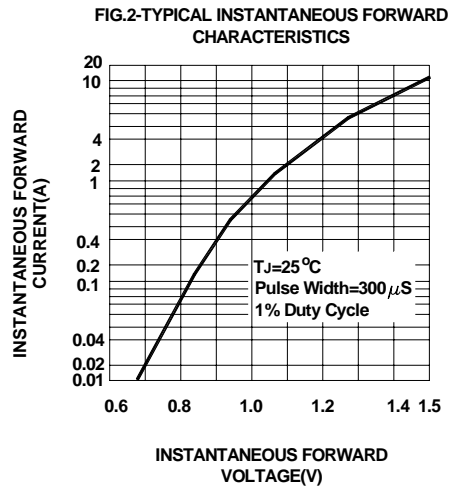
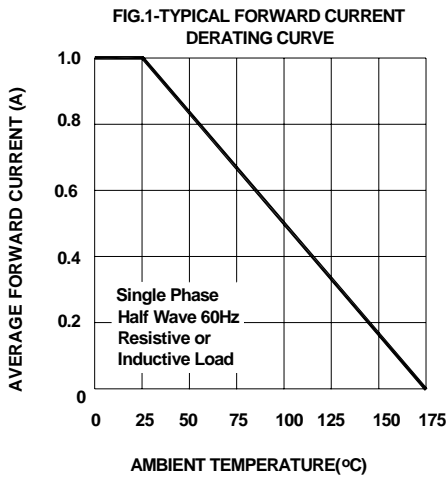


ISO 9001:2000
Certificate No. 050098

Dated : 08/09/2003

1A1 THRU 1A7

RATING AND CHARACTERISTIC CURVES (1A1 thru 1A7)



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ISO 14001:2004
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ISO 9001:2000
Certificate No. 050698

Dated : 08/09/2003