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<u>Fairchild Semiconductor</u> <u>1N456A</u>

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Datasheet of 1N456A - DIODE GEN PURP 30V 500MA DO35

Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com



December 2004

1N456A

Small Signal Diode



DO-35

Absolute Maximum Ratings * Ta = 25°C unless otherwise noted

| Symbol | Parameter | Value | Unit |
|--------------------|--|-------------|--------|
| V _{RRM} | Maximum Repetitive Reverse Voltage | 30 | V |
| I _{F(AV)} | Average Rectified Forward Current | 500 | mA |
| I _{FSM} | Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond | 1.0 4.0 | A A |
| T _{STG} | Storage Temperature Range | -65 to +200 | °C |
| T _J | Operating Junction Temperature | 175 | °C |

^{*} These ratings are limiting values above which the serviceability of the diode may be impaired.

Thermal Characteristics

| Symbol | Parameter | Value | Unit |
|-----------------|---|-------|------|
| P_{D} | Power Dissipation | 500 | mW |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 300 | °C/W |

Electrical Characteristics $T_C = 25$ °C unless otherwise noted

| Symbol | Parameter | Conditions | Min. | Max | Units |
|----------------|-------------------|--|------|----------|----------|
| V_R | Breakdown Voltage | $I_R = 5\mu A$ | 30 | | V |
| V_{F} | Forward Voltage | I _F = 100mA | | 1.0 | V |
| I _R | Reverse Leakage | V _R = 25V V _R = 25V, T _A = 150°C | | 25 50 | nA μA |

¹⁾ These ratings are based on a maximum junction temperature of 200 degrees C.

²⁾ These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.



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| Datasheet Identification | Product Status | Definition |
|--------------------------|---------------------------|---|
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