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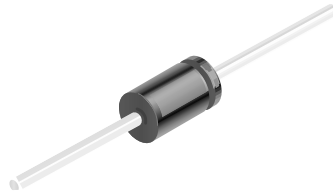


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1N3595



DO-35

Color Band Denotes Cathode

Small Signal Diode

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-------------|--------------------------------------------------------------------------------------------------------|-------------|------------------|
| V_{RRM} | Maximum Repetitive Reverse Voltage | 150 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current | 200 | 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 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | 175 | $^\circ\text{C}$ |

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

| Symbol | Parameter | Value | Units |
|-----------------|-----------------------------------------|-------|---------------------------|
| P_D | Power Dissipation | 500 | mW |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 300 | $^\circ\text{C}/\text{W}$ |

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Test Conditions | Min | Max | Units |
|----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|-------------------------------------------------------|
| V_R | Breakdown Voltage | $I_R = 100 \mu\text{A}$ | 150 | | V |
| V_F | Forward Voltage | $I_F = 1.0 \text{ mA}$ $I_F = 5.0 \text{ mA}$ $I_F = 10 \text{ mA}$ $I_F = 50 \text{ mA}$ $I_F = 100 \text{ mA}$ $I_F = 200 \text{ mA}$ | 0.52 0.60 0.65 0.75 0.79 0.83 | 0.68 0.75 0.80 0.88 0.92 1.00 | V V V V V V |
| I_R | Reverse Current | $V_R = 125 \text{ V}$ $V_R = 30 \text{ V}, T_A = 125^\circ\text{C}$ $V_R = 125 \text{ V}, T_A = 125^\circ\text{C}$ $V_R = 125 \text{ V}, T_A = 150^\circ\text{C}$ | | 1 0.3 0.5 3 | nA μA μA μA |
| C_T | Total Capacitance | $V_R = 0, f = 1.0 \text{ MHz}$ | | 8 | pF |
| t_{rr} | Reverse Recovery Time | $I_F = 10 \text{ mA}, V_R = 3.5 \text{ V},$ $R_L = 1.0 \text{ k}\Omega$ | | 3 | μs |

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