

New Jersey Semi-Conductor Products, Inc.

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1N5415
 1N5416
 1N5417
 1N5418
 1N5419
 1N5420

FAST RECOVERY
 GLASS PASSIVATED RECTIFIER
 3.0 AMPS, 50 THRU 600 VOLTS
 GPR-3A CASE*

DESCRIPTION

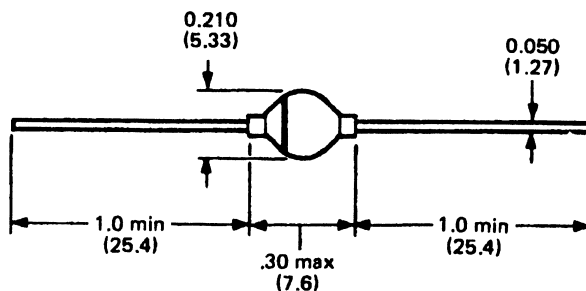
The CENTRAL SEMICONDUCTOR 1N5415 series types are silicon rectifiers mounted in a hermetically sealed, glass passivated package designed for general purpose applications where fast reverse recovery times and high reliability are required.

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

| | SYMBOL | 1N5415 | 1N5416 | 1N5417 | 1N5418 | 1N5419 | 1N5420 | UNI |
|--|-------------------|--------|--------|-------------|--------|--------|--------|------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 500 | 600 | V |
| DC Blocking Voltage | V_R | 50 | 100 | 200 | 400 | 500 | 600 | V |
| RMS Reverse Voltage | $V_R(\text{RMS})$ | 35 | 70 | 140 | 280 | 350 | 420 | V |
| Average Forward Current ($T_A=55^\circ\text{C}$) | I_O | | | | 3.0 | | | A |
| Peak Forward Surge Current | I_{FSM} | | | | 80 | | | A |
| Operating and Storage Junction Temperature | T_J, T_{STG} | | | -65 TO +200 | | | | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS

| SYMBOL | TEST CONDITIONS | 1N5415 | 1N5416 | 1N5417 | 1N5418 | 1N5419 | 1N5420 | UNI |
|----------|--|--------|--------|--------|--------|--------|--------|---------------|
| I_R | $V_R=\text{Rated } V_{RRM}$ | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | μA |
| I_R | $V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$ | 20 | 20 | 20 | 20 | 20 | 20 | μA |
| I_R | $V_R=\text{Rated } V_{RRM}, T_A=175^\circ\text{C}$ | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | mA |
| V_F | $I_F=3.0\text{A}$ | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | V |
| V_F | $I_F=9.0\text{A}$ | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | V |
| BV_R | $I_R=50\mu\text{A}$ | 55 | 110 | 220 | 440 | 550 | 660 | V |
| C | $V_R=12\text{V}, f=1.0\text{MHz}$ | 200 | 175 | 150 | 120 | 110 | 100 | pF |
| t_{rr} | $I_F=0.5\text{A}, I_R=1.0\text{A},$ Recov. to 0.25A | 150 | 150 | 150 | 150 | 250 | 400 | ns |



DIMENSIONS IN INCHES (MILLIMETERS)