

KNOX SEMICONDUCTOR, INC.

GENERAL PURPOSE ABRUPT VARACTOR DIODES 1N5441 TO 1N5476

| TYPE NUMBER | CAPACITANCE @ -4 Vdc • 1 MHz (pF) | TUNING RATIO C•2 V / C•30V | | MIN QUALITY FACTOR Q @ -4 Vdc f = 50 MHz |
|-------------|---|-------------------------------|-----|--|
| | | MIN | MAX | |
| 1N5441 | 6.8 | 2.5 | 3.1 | 450 |
| 1N5442 | 8.2 | 2.5 | 3.1 | 450 |
| 1N5443 | 10.0 | 2.6 | 3.1 | 400 |
| 1N5444 | 12.0 | 2.6 | 3.1 | 400 |
| 1N5445 | 15.0 | 2.6 | 3.1 | 400 |
| 1N5446 | 18.0 | 2.6 | 3.1 | 350 |
| 1N5447 | 20.0 | 2.6 | 3.1 | 350 |
| 1N5448 | 22.0 | 2.6 | 3.2 | 350 |
| 1N5449 | 27.0 | 2.6 | 3.2 | 350 |
| 1N5450 | 33.0 | 2.6 | 3.2 | 350 |
| 1N5451 | 39.0 | 2.6 | 3.2 | 300 |
| 1N5452 | 47.0 | 2.6 | 3.2 | 250 |
| 1N5453 | 56.0 | 2.6 | 3.3 | 200 |
| 1N5454 | 68.0 | 2.7 | 3.3 | 175 |
| 1N5455 | 82.0 | 2.7 | 3.3 | 175 |
| 1N5456 | 100.0 | 2.7 | 3.3 | 175 |
| ◆1N5461 | 6.8 | 2.7 | 3.1 | 600 |
| ◆1N5462 | 8.2 | 2.8 | 3.1 | 600 |
| ◆1N5463 | 10.0 | 2.8 | 3.1 | 550 |
| ◆1N5464 | 12.0 | 2.8 | 3.1 | 550 |
| ◆1N5465 | 15.0 | 2.8 | 3.1 | 550 |
| ◆1N5466 | 18.0 | 2.9 | 3.1 | 500 |
| ◆1N5467 | 20.0 | 2.9 | 3.1 | 500 |
| ◆1N5468 | 22.0 | 2.9 | 3.2 | 500 |
| ◆1N5469 | 27.0 | 2.9 | 3.2 | 500 |
| ◆1N5470 | 33.0 | 2.9 | 3.2 | 500 |
| ◆1N5471 | 39.0 | 2.9 | 3.2 | 450 |
| ◆1N5472 | 47.0 | 2.9 | 3.2 | 400 |
| ◆1N5473 | 56.0 | 2.9 | 3.3 | 300 |
| ◆1N5474 | 68.0 | 2.9 | 3.3 | 250 |
| ◆1N5475 | 82.0 | 2.9 | 3.3 | 225 |
| ◆1N5476 | 100.0 | 2.9 | 3.3 | 200 |

| | | |
|----------------------------------|--------------------------------|---------------|
| Package style | | DO-7 |
| DC Power Dissipation | @ Ta = 25°C | 400 mW |
| Min Reverse Breakdown Voltage | @ Ir = 10 µA | 30 V |
| Max Reverse Current (Ir) | @ 25 Vdc | 0.02 µA |
| Max Reverse Current (Ir2) | @ 25 Vdc 150°C | 20 µA |
| Temp. Coefficient of Capacitance | @ Vr -4 Vdc, Ta -65° to + 85°c | .04%/°C |
| Operating Temperature (Topr) | | -65 to +175°C |
| Storage Temperature (Tstg) | | -65 to +200°C |
| Capacitance Tolerance | Standard Device | ±20% |
| | Suffix A | ±10% |
| | Suffix B | ±5% |
| | Suffix C | ±2% |

◆ DENOTES MILITARY APPROVAL FOR JAN - JANTX - JANTXV (B & C Tolerance only)