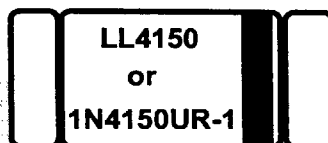


# MINI-MELF-SMD

## Applications



## Silicon Diode Switching

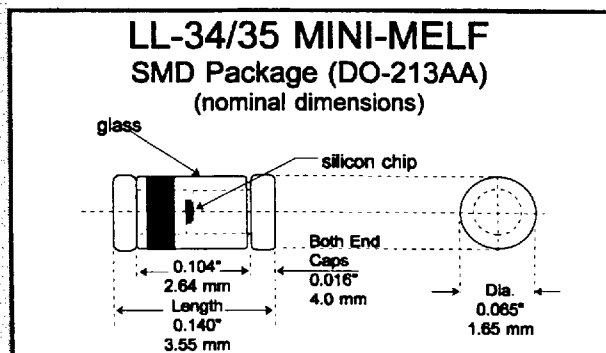
Used in general purpose applications, where a low current controlled forward characteristic and fast switching speed are important.

*BKC can produce generic equivalents to JAN/ TX/ TXV and S level per MIL-S-19500/ 437 with internal source control drawings.*

*Use HR, HRX, HRV or HRS suffixes for cost effective high reliability parts.*

## Features

- Six sigma quality
- Metallurgically bonded
- BKC's Sigma Bond™ plating for problem free solderability
- Available in DO-35 package with approval to Mil-S-19500 / 437



| Maximum Ratings                                 |  | Symbol                   | Value       | Unit         |       |
|---|--|--------------------------|-------------|--------------|-------|
| Peak Inverse Voltage @ 5μA & 0.1μA @ -55 °C     |  | PIV                      | 75 (Min.)   | Volts        |       |
| Average Rectified Current                       |  | I <sub>Avg</sub>         | 200         | mAmps        |       |
| Continuous Forward Current                      |  | I <sub>Fdc</sub>         | 400         | mAmps        |       |
| Peak Surge Current (t <sub>peak</sub> = 1 Sec.) |  | I <sub>peak</sub>        | 0.50        | Amp          |       |
| Power Dissipation T <sub>End Cap</sub> = 50 °C  |  | P <sub>tot</sub>         | 500         | mWatts       |       |
| Operating and Storage Temperature Range         |  | T <sub>Op &amp; St</sub> | -65 to +175 | °C           |       |
| Electrical Characteristics @ 25 °C              |  | Symbol                   | Minimum     | Maximum      | Unit  |
| Forward Voltage Drop @ I <sub>F</sub> = 100 μA  |  | V <sub>F</sub>           | 0.49        | 0.55         | Volts |
| Forward Voltage Drop @ I <sub>F</sub> = 1.0 mA  |  | V <sub>F</sub>           | 0.54        | 0.62         | Volts |
| Forward Voltage Drop @ I <sub>F</sub> = 10 mA   |  | V <sub>F</sub>           | 0.66        | 0.74         | Volts |
| Forward Voltage Drop @ I <sub>F</sub> = 50 mA   |  | V <sub>F</sub>           | 0.76        | 0.86         | Volts |
| Forward Voltage Drop @ I <sub>F</sub> = 100 mA  |  | V <sub>F</sub>           | 0.82        | 0.92         | Volts |
| Forward Voltage Drop @ I <sub>F</sub> = 200 mA  |  | V <sub>F</sub>           | 0.87        | 1.00         | Volts |
| Reverse Leakage Current @ V <sub>R</sub> = 50 V |  | I <sub>R</sub>           |             | 100          | nA    |
| Reverse Leakage Current @ V <sub>R</sub> = 50 V |  | I <sub>R</sub>           |             | 100 @ 150 °C | μA    |
| Capacitance @ V <sub>R</sub> = 0 V, f = 1mHz    |  | C <sub>T</sub>           |             | 2.5          | pF    |
| Reverse Recovery Time (note 1)                  |  | t <sub>rr</sub>          |             | 4.0          | nSecs |

Note 1: Per Method 4031-B with I<sub>F</sub> = I<sub>R</sub> = 10 mA, R<sub>L</sub> = 100 Ohms, C = 3 Pf..

For equivalent MIL devices, use 1N4150UR-1 along with the appropriate HR, HRX, HRV or HRS suffix.

The SMD DO-213AA also comes in a commercial and a military DO-35 leaded version (1N4150).



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56