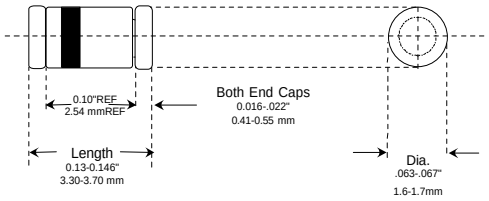
# MINI-MELF-SMD 1N4454UR-1 Silicon Switching Diode

## Applications

Used in general purpose applications, where performance, space and switching speed are important.

LL-34/35 MINI MELF
Surface Mount Package DO-213AA




## Features

- Six sigma quality
- Metallurgically bonded
- BKC's Sigma Bond™ plating for problem free solderability
- Also comes in DO-35 glass package
- Full UR approval to Mil-S-19500 /144
- Available up to JANTXV levels
- "S" level screening available to Source Control Drawings

| **Maximum Ratings** | **Symbol** | **Value** | **Unit** |
|---|---|---|---|
| Peak Inverse Voltage @ 5µA & 0.1µA @ -55°C | PIV | 75 (Min.) | Volts |
| Average Rectified Current | $I_{Avg}$ | 200 | mAmps |
| Continuous Forward Current | $I_{Fdc}$ | 300 | mAmps |
| Peak Surge Current ($t_{peak}$ = 1 sec.) | $I_{peak}$ | 1.0 | Amp |
| Power Dissipation $T_L$ = 50 °C, L = 3/8" from body | $P_{tot}$ | 500 | mWatts |
| Operating Temperature Range | $T_{Op}$ | 200 | ° C |
| Storage Temperature Range | $T_{St}$ | -65 to +200 | ° C |
| **Electrical Characteristics @ 25 °C*** | **Symbol** | **Limits** | **Unit** |
| Forward Voltage @ $I_F$= 10 mA | $V_F$ | 1.0(max) | Volts |
| Breakdown Voltage @ $I_R$ = 10 mA | PIV | 75 (min) | Volts |
| Reverse Leakage Current @ $V_R$ = 50 V | $I_R$ | 0.1 (max) | µA |
| Reverse Leakage Current @ $V_R$ = 50 V, T=150 °C | $I_R$ | 100 (max) | µA |
| Capacitance @ $V_R$ = 0 V, f = 1mHz | $C_T$ | 2.0 (max) | pF |
| Reverse Recovery Time (note 1)/(note 2) | $t_{rr}$ | 2.0/4.0 (max) | nSecs |
| Forward Recovery Voltage (note 3) | $V_{fr}$ | 3.0 (max) | Volts |

Note 1: Per Method 4031-A with $I_F$ = $I_R$ = 10 mA, $R_L$ = 100 Ohms, C = 3 Pf.

Note 2: Per Method 4031-A with $I_F$ = 10 mA, $R_L$ = 100 Ohms, Vr = 6 V, Recover to 1.0 mA.

Note 3: Per Method 4026 with $I_F$ = 100 mA, $R_L$ = 50 Ohms,Peak Square wave ,100 nSec Pulse Width, tr<30 nSec,repetition Rate = 5 - 100 KHz. *Unless Otherwise Specified

Microsemi
*6 Lake Street - Lawrence, MA 01841*
*Tel: 978-681-0392 - Fax: 978-681-9135*