

# MINI-MELF-SMD

1N4454UR-1

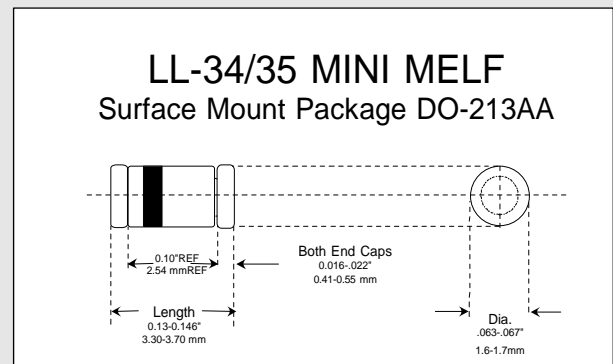
# Silicon Switching Diode

## Applications

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

## 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 @ 5 $\mu$ A & 0.1 $\mu$ A @ -55°C	PIV	75 (Min.)	Volts
Average Rectified Current	I <sub>Avg</sub>	200	mAmps
Continuous Forward Current	I <sub>Fdc</sub>	300	mAmps
Peak Surge Current (t <sub>peak</sub> = 1 sec.)	I <sub>peak</sub>	1.0	Amp
Power Dissipation T <sub>L</sub> = 50 °C, L = 3/8" from body	P <sub>tot</sub>	500	mWatts
Operating Temperature Range	T <sub>Op</sub>	200	° C
Storage Temperature Range	T <sub>St</sub>	-65 to +200	° C
Electrical Characteristics @ 25 °C*	Symbol	Limits	Unit
Forward Voltage @ I <sub>F</sub> = 10 mA	V <sub>F</sub>	1.0(max)	Volts
Breakdown Voltage @ I <sub>R</sub> = 10 mA	PIV	75 (min)	Volts
Reverse Leakage Current @ V <sub>R</sub> = 50 V	I <sub>R</sub>	0.1 (max)	$\mu$ A
Reverse Leakage Current @ V <sub>R</sub> = 50 V, T=150 °C	I <sub>R</sub>	100 (max)	$\mu$ A
Capacitance @ V <sub>R</sub> = 0 V, f = 1mHz	C <sub>T</sub>	2.0 (max)	pF
Reverse Recovery Time (note 1)/(note 2)	t <sub>rr</sub>	2.0/4.0 (max)	nSecs
Forward Recovery Voltage (note 3)	V <sub>fr</sub>	3.0 (max)	Volts

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

Note 2: Per Method 4031-A with I<sub>F</sub> = 10 mA, R<sub>L</sub> = 100 Ohms, V<sub>r</sub> = 6 V, Recover to 1.0 mA.

Note 3: Per Method 4026 with I<sub>F</sub> = 100 mA, R<sub>L</sub> = 50 Ohms, Peak Square wave, 100 nSec Pulse Width, tr < 30 nSec, repetition Rate = 5 - 100 KHz. \*Unless Otherwise Specified



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