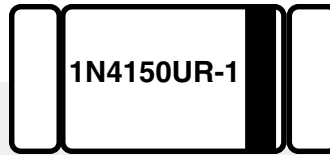


# MINI-MELF-SMD



# Silicon Diode Switching

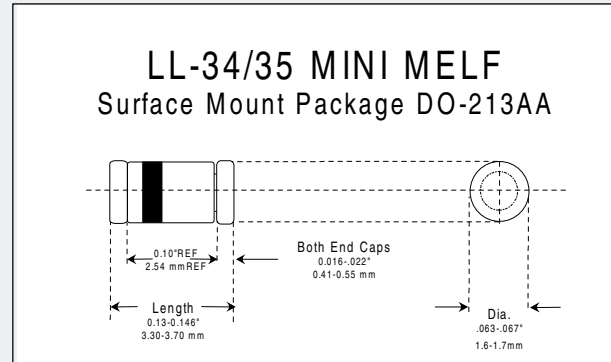
## Applications

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/ 231 with internal source control drawings.*

## Features

- Six sigma quality
- Metallurgically bonded
- BKC's Sigma Bond™ plating for problem free solderability
- Available in DO-35 package
- UR Approval to Mil-S-19500/231



### Maximum Ratings

	Symbol	Value	Unit
Peak Inverse Voltage	PIV	75 (Min.)	Volts
Average Rectified Current	$I_{Avg}$	200	mAmps
Continuous Forward Current	$I_{Edc}$	400	mAmps
Peak Surge Current ( $t_{peak} = 1 \text{ sec.}$ )	$I_{peak}$	0.5	Amp
BKC Power Dissipation $T_c = 50^\circ\text{C}$ , $L = 3/8"$ from body	$P_{tot}$	500	mWatts
Operating Temperature Range	$T_{Op}$	-65 to +200	$^\circ\text{C}$
Storage Temperature Range	$T_{St}$	-65 to +200	$^\circ\text{C}$

Electrical Characteristics @ 25°C	Symbol	Minimum	Maximum	Unit
Forward Voltage Drop @ $I_F = 1.0 \text{ mA}$	$V_F$	0.54	0.62	Volts
Forward Voltage Drop @ $I_F = 10 \text{ mA}$	$V_F$	0.66	0.74	Volts
Forward Voltage Drop @ $I_F = 50 \text{ mA}$	$V_F$	0.76	0.86	Volts
Forward Voltage Drop @ $I_F = 100 \text{ m}$	$V_F$	0.80	0.92	Volts
Forward Voltage Drop @ $I_F = 200 \text{ mA}$	$V_F$	0.87	1.0	Volts
Reverse Leakage Current @ $V_R = 50 \text{ V}$	$I_R$		0.1 (100 @ 150 °C)	$\mu\text{A}$
Breakdown Voltage @ $I_r = 0.1 \text{ mA}$	PIV	75		Volts
Capacitance @ $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_T$		2.5	pF
Reverse Recovery time (note 1)	$t_{rr}$		4.0	nSecs
Reverse Recovery time (note 2,3)	$t_{rr}$		6.0	nSecs
Forward Recovery time (note 4)	$V_{fr}$		10	nSecs

Note 1: Per Method 4031-A with  $I_F = I_R = 10$  to 200 mA,  $R_L = 100 \text{ Ohms}$ , recover to 0.1 If.

Note 2: Per Method 4031-A with  $I_F = I_R = 200$  to 400 mA,  $R_L = 100 \text{ Ohms}$ , recover to 0.1 If.

Note 3: Per Method 4031-A with  $I_F = 10 \text{ microA}$ ,  $I_r = 1.0 \text{ mA}$ , recover to 0.1 mA.

Note 4: Per Method 4026 with  $I_F = 200 \text{ mA}$ ,  $I_r = 1.0 \text{ mA}$ , recover to 0.1 mA.



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