



SOT-363

Min

0.10

1.15

2.00

0.30

1.80

\_\_\_\_

0.90

0.25

0.10

0°

All Dimensions in mm

0.65 Nominal

Max

0.30

1.35

2.20

0.40

2.20

0.10

1.00

0.40

0.25

8°

Dim

Α

в

С

D

F

н

J

κ

L

М

α

# SURFACE MOUNT SCHOTTKY BARRIER DIODE ARRAY

→A ←

TOP VIEW

в С



- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching
- Low Leakage Current
- Three Fully Isolated Schottky Diodes
- Lead Free/RoHS Compliant (Note 3)

#### **Mechanical Data**

- Case: SOT-363
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Polarity: See Diagram
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Marking: KLL (See Page 3)
- Ordering Information: (See Page 3)
- Weight: 0.006 grams (approx.)

#### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	40	v
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	V
Forward Continuous Current (Note 1)	IFM	350	mA
Average Rectified Current (Note 1)	Ιo	175	mA
Non-Repetitive Peak Forward Surge Current (Note 1) $@ t \le 10ms$	I <sub>FSM</sub>	1.0	А
Power Dissipation (Note 4)	Pd	200	mW
Thermal Resistance, Junction to Ambient Air (Note 4)	R <sub>0JA</sub>	500	°C/W
Operating and Storage Temperature Range	Tj, T <sub>STG</sub>	-55 to +125	°C

## Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic		Min	Тур	Мах	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)R</sub>	40	—	_	V	I <sub>RS</sub> = 100μA (pulsed)
Forward Voltage Drop	VF		0.27 0.32 0.36 0.44	 0.37 0.50	V V V V	$\begin{array}{l} I_F = 1mA \\ I_F = 5mA \\ I_F = 20mA \\ I_F = 100mA \end{array}$
Reverse Current (Note 2)	I <sub>R</sub>		0.2 0.4	2.0 5.0	μ <b>Α</b> μΑ	$V_R = 10V$ $V_R = 30V$
Total Capacitance	Ст		50		pF	V <sub>R</sub> = 0V, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>		10		ns	$\label{eq:lf} \begin{array}{l} I_{F} = I_{R} = 200 \text{mA}, \\ I_{rr} = 0.1 \text{ x } I_{R}, \ R_{L} = 100 \Omega \end{array}$

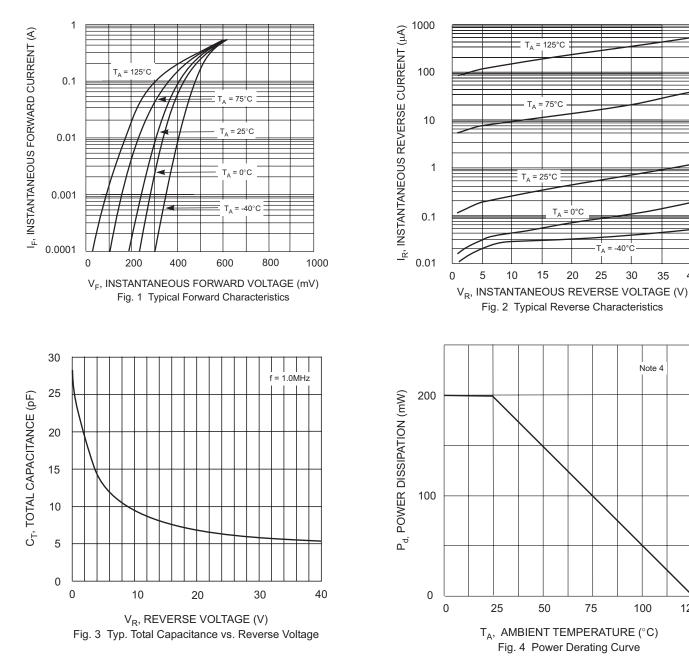
Notes: 1. This is the maximum rating of single Diode (D<sub>1</sub> or D<sub>2</sub> or D<sub>3</sub>). In the case of using two or three diodes, the maximum ratings per diode are 75% of the ratings for single diode operation.

2. Short duration test pulse used to minimize self-heating effect.

3. No purposefully added lead.

4. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.





 $= -40^{\circ}$ 

30

35

Note 4

100

125

40

25

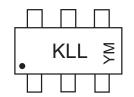


### Ordering Information (Note 5)

Device	Packaging	Shipping
SD103ATW-7-F	SOT-363	3000/Tape & Reel

Notes: 5. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

# **Marking Information**



 $\begin{array}{l} \mathsf{KLL} = \mathsf{Product} \ \mathsf{Type} \ \mathsf{Marking} \ \mathsf{Code} \\ \mathsf{YM} = \mathsf{Date} \ \mathsf{Code} \ \mathsf{Marking} \\ \mathsf{Y} = \mathsf{Year} \ \mathsf{ex} : \mathsf{N} = 2002 \\ \mathsf{M} = \mathsf{Month} \ \mathsf{ex} : \mathsf{9} = \mathsf{September} \end{array}$ 

Date Code Key

Year		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Code		Ν	Р	R	S	Т	U	V	W	Х	Y	Z
Month	Jan	Feb	March	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	0	N	D

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