

SURFACE MOUNT STEP RECOVERY DIODES

DESCRIPTION:

SILICON STEP RECOVERY DIODES IN A SOT-23 PACKAGE.

Absolute Maximum Ratings

| | |
|---|----------|
| I | 100 mA |
| V | AS SHOWN |

PACKAGE STYLE SOT-23 PACKAGE

| DIM | MILLIMETERS | | INCHES | |
|-----|-------------|-------|--------|--------|
| | MIN | MAX | MIN | MAX |
| A | 2.80 | 3.04 | 0.1102 | 0.1197 |
| B | 1.20 | 1.40 | 0.0472 | 0.0551 |
| C | 0.89 | 1.11 | 0.0350 | 0.0440 |
| D | 0.37 | 0.50 | 0.0150 | 0.0200 |
| G | 1.78 | 2.04 | 0.0701 | 0.0807 |
| H | 0.013 | 0.100 | 0.0005 | 0.0040 |
| J | 0.085 | 0.177 | 0.0034 | 0.0070 |
| K | 0.45 | 0.60 | 0.0180 | 0.0236 |
| L | 0.89 | 1.02 | 0.0350 | 0.0400 |
| S | 2.10 | 2.50 | 0.0830 | 0.0984 |
| V | 0.45 | 0.60 | 0.0177 | 0.0236 |

Electrical Characteristics

| Model Number | Min. Breakdown Voltage (VOLTS) IR=10μA | Total Capacitance (pF) f=1MHz VR=6V | Minority Carrier Lifetime (nsec) IF=10mA | Max. Transition Time (psec) | Typical Input Frequency (GHz) | Typical Output Frequency (GHz) |
|--------------|---|--|---|-----------------------------|-------------------------------|--------------------------------|
| ASR1000 | 15 | 0.25-0.50 | 10 | 70 | 0.50-3.0 | 9.0-18.0 |
| ASR1000A | 15 | 0.50-1.00 | 10 | 70 | 0.50-3.0 | 9.0-18.0 |
| ASR1000B | 15 | 1.00-1.50 | 10 | 70 | 0.50-3.0 | 9.0-18.0 |
| ASR1001A | 30 | 0.25-0.50 | 25 | 100 | 0.50-3.0 | 5.0-15.0 |
| ASR1001B | 30 | 0.50-1.00 | 25 | 100 | 0.50-3.0 | 5.0-15.0 |
| ASR1001C | 30 | 1.00-1.50 | 25 | 150 | 0.50-3.0 | 5.0-15.0 |
| ASR1001D | 30 | 1.50-2.50 | 75 | 200 | 0.50-3.0 | 5.0-15.0 |
| ASR1001E | 30 | 2.50-4.00 | 200 | 500 | 0.50-3.0 | 5.0-15.0 |
| ASR1002A | 45 | 0.50-1.00 | 35 | 200 | 0.25-1.5 | 2.0-7.5 |
| ASR1002B | 45 | 1.00-1.50 | 35 | 200 | 0.25-1.5 | 2.0-7.5 |
| ASR1002C | 45 | 1.50-2.00 | 50 | 300 | 0.25-1.5 | 2.0-7.5 |
| ASR1002D | 45 | 2.00-3.00 | 50 | 300 | 0.25-1.5 | 2.0-7.5 |

Pin Configuration:

Pin #1=Anode, Pin #2=N.C., Pin #3=Cathode

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