

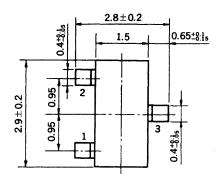
SILICON SWITCHING DIODES

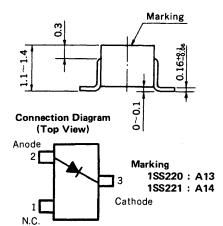
1SS220,1SS221

HIGH SPEED SWITCHING SILICON EPITAXIAL DIODES MINI MOLD

PACKAGE DIMENSIONS

in millimeters





FEATURES

- Low capacitance: C_t = 4.0 pF MAX.
- High speed switching: t_{rr} = 3.0 ns MAX.
- Wide applications including switching, limitter, clipper.

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Currents (T_a = 25 °C)

| | | | 188220 | 188221 | |
|------|---------------------------|----------------|-------------|--------|-------|
| | Peak Reverse Voltage | V_{RM} | 70 | 100 | V |
| | DC Reverse Voltage | V_R | 70 | 100 | V |
| | Peak Forward Current | IFM | 300 | 300 | mΑ |
| | Average Rectified Current | lo | 100 | 100 | mA |
| | DC Forward Current | ۱ _F | 100 | 100 | mΑ |
| Maxi | mum Temperatures | | | | |
| | Junction Temperature | T_{j} | 150 | | °C |
| | Storage Temperature Range | T_{stg} | -55 to +150 | | °C |
| Ther | mal Resistance | | | | |
| | Junction to Ambient | | 0.67 | | °C/mW |
| | | | | | |

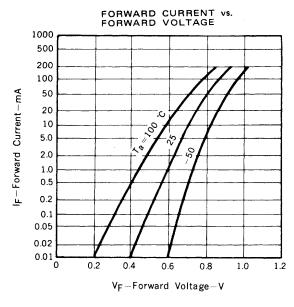
ELECTRICAL CHARACTERISTICS (T2 = 25 °C)

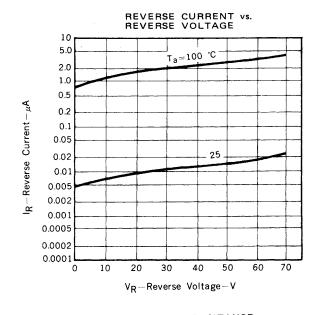
| CHARACTERISTIC | SYMBOL | | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|--|-----------------|--------|------|------|------|---|-------------------------|
| The state of the s | V _{F1} | | | 720 | 850 | mV | I _F = 10 mA |
| Forward Voltage | V _{F2} | | | 850 | 1000 | mV | I _F = 50 mA |
| | V _{F3} | | | 950 | 1200 | mV | I _F = 100 mA |
| D | I _R | 1SS220 | | | 1.0 | μА | V _R = 70 V |
| Reverse Current | | 1SS221 | | | 1.0 | μΑ | V _R = 100 V |
| Capacitance C _t | | | 2.0 | 4.0 | pF | V _R = 0, f = 1.0 MHz | |
| Reverse Recovery Time t _{rr} | | | | 3.0 | ns | $I_F = 10$ mA, $V_R = 6$ V, $R_L = 100 \Omega$, See Test Circuit. | |

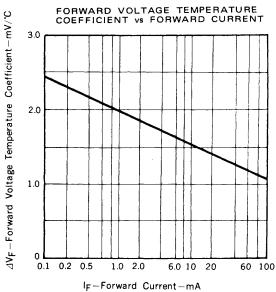
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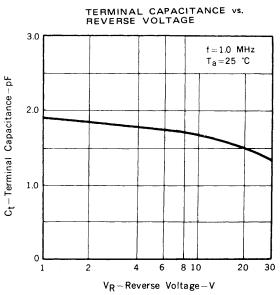
Not all devices/types available in every country. Please check with local NEC representative for availability and additional information.

TYPICAL CHARACTERISTICS (Ta = 25 °C)



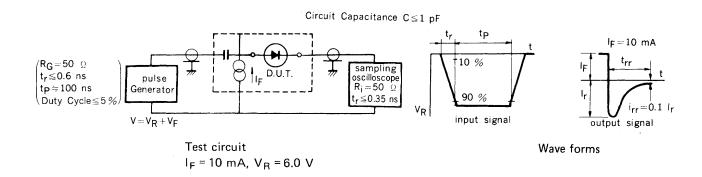






SWITCHING CHARACTERISTICS TEST CIRCUIT

Reverse recovery time : t_{rr}



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