



# 1S20 THRU 1S100

## 1 A Schottky Barrier Rectifiers

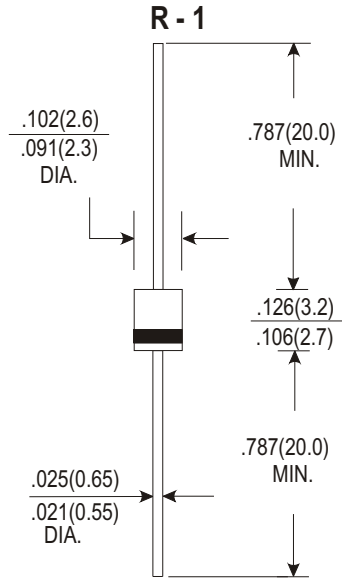
**Voltage Range 20 to 100 Volts**  
**Current 1.0 Ampere**

### Features

- \* Plastic material used carries Underwriters Laboratory Classification 94V-0
- \* Metasilicon junction majority carrier conduction
- \* Low power loss , high efficiency
- \* High current capability , low forward voltage drop
- \* High surge capability
- \* Guardring for overvoltage protection
- \* For use in low voltage , high frequency inverters , free wheeling , and polarity protection applications
- \* High temperature soldering guaranteed:
- \* 250°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs.(2.3kg) tension

### Mechanical Data

- \* Case: Molded plastic
- \* Terminals:Plated Axial leads , solderable per MIL-STD-750 , Method 2026
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight: 0.20 gram



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified Single phase ,half wave ,60HZ, resistive or inductive load. For capacitive load ,derate current by 20%

Type Number	1S20	1S30	1S40	1S50	1S60	1S80	1S100	Units
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current See Fig .1	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave superimposed on Rated Load (JEDEC method)	20							A
Maximum Instantaneous Forward Voltage @1.0A	0.52	0.55	0.65	0.85				V
Maximum DC Reverse current @ T <sub>A</sub> =25°C	0.1							mA
At Rated DC Blocking Voltage @ T <sub>A</sub> =100°C	10.0							mA
Typical Thermal Resistance R <sub>θ</sub> JA (Note 1)	50							°C/W
Typical Thermal Capacitance (Note 2)	110		50			30		pF
Operating Junction Temperature Range T <sub>J</sub>	-55 to + 125					-55 to + 150		°C
Storage Temperature Range T <sub>STG</sub>	-55 to + 150							°C

#### Notes:

1. Thermal Resistance form junctoin to Ambient at .375"(9.5mm) Lead Length , PC Board Mounted.
2. Measured at 1.0 MHz and Applied VR=4.0 Volts.

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Current 1.0 Ampere

### RATINGS AND CHARACTERISTIC CURVES ( 1S20 THRU 1S100 )

FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

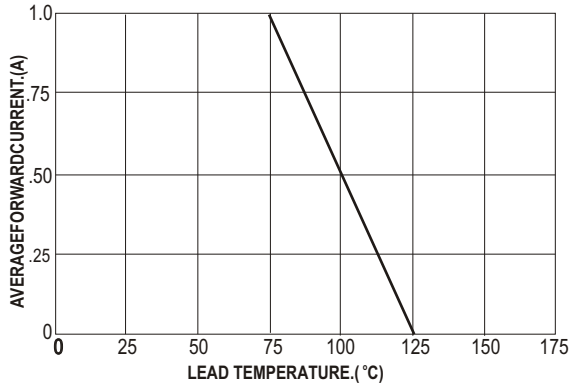


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

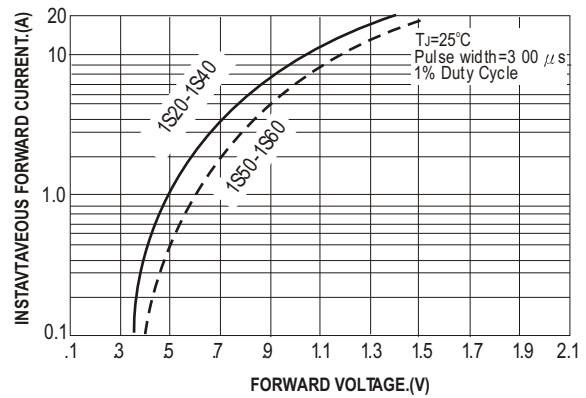


FIG.3-TYPICAL REVERSE CHARACTERISTICS

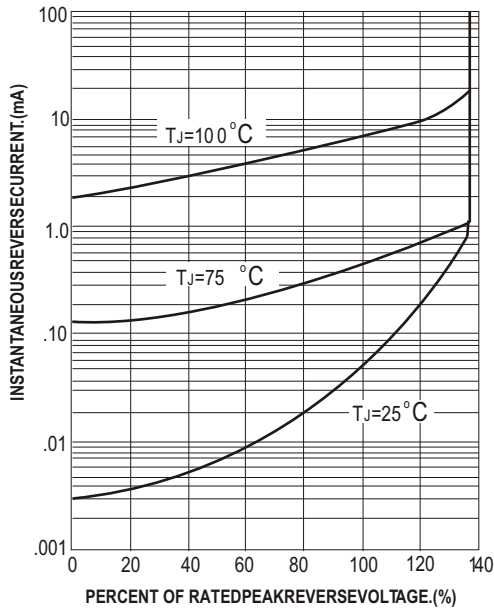


FIG.4-TYPICAL JUNCTION CAPACITANCE

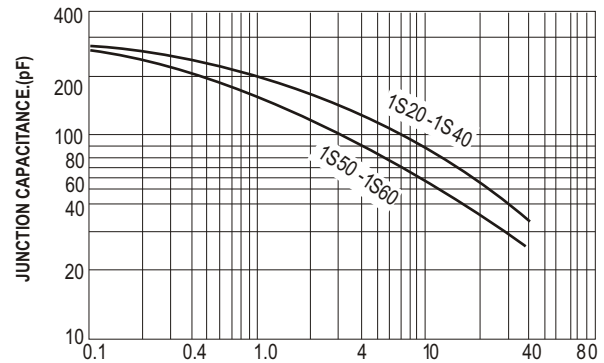


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

