



1S20 THRU 1S60

1 A Schottky Barrier Rectifiers

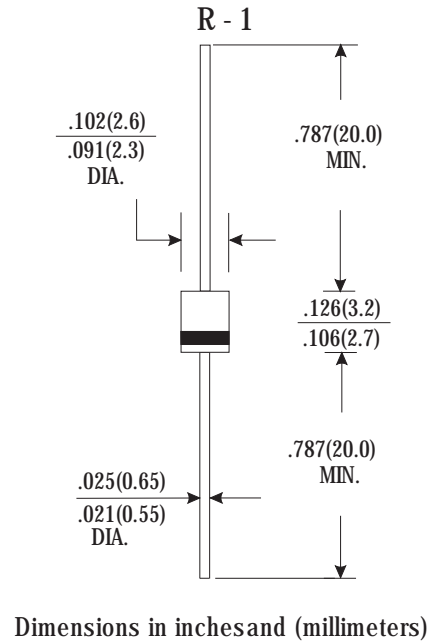
Voltage Range 20 to 60 Volts
Current 1.0 Ampere

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



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	Units
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	V
Maximum RMS Voltage	14	21	28	35	42	V
Maximum DC Blocking Voltage	20	30	40	50	60	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)	25					A
Maximum Instantaneous Forward Voltage @1.0A	0.55		0.70			V
Maximum DC Reverse current @ T _A =25°C	1.0					mA
At Rated DC Blocking Voltage @ T _A =100°C	10.0					mA
Typical Thermal Resistance R _{JA} (Note 1)	50					°C/W
Typical Thermal Capacitance (Note 2)	110			50		pF
Operating Junction Temperature Range T _J	-55 to + 125			-55 to + 150		°C
Storage Temperature Range T _{STG}	-55 to + 150					°C

Notes:

1. Thermal Resistance from junction 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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RATINGS AND CHARACTERISTIC CURVES (1S20 THRU 1S60)

FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

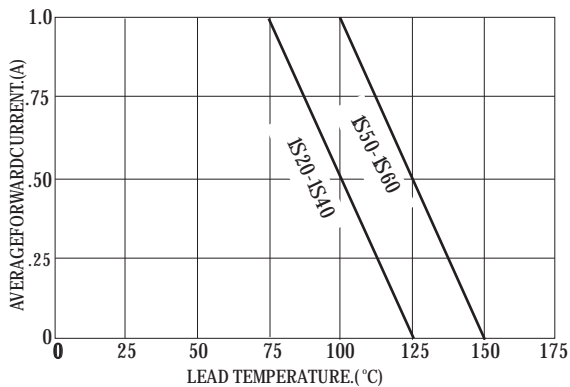


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

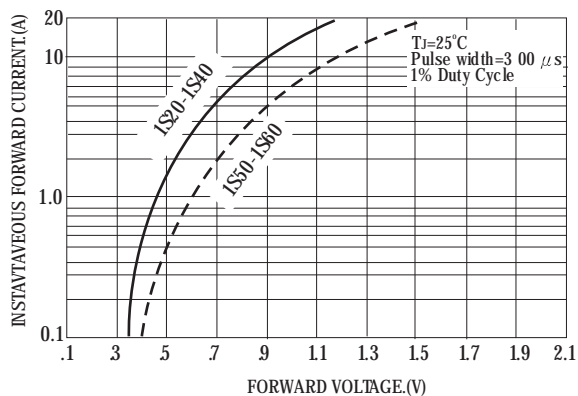


FIG.3-TYPICAL REVERSE CHARACTERISTICS

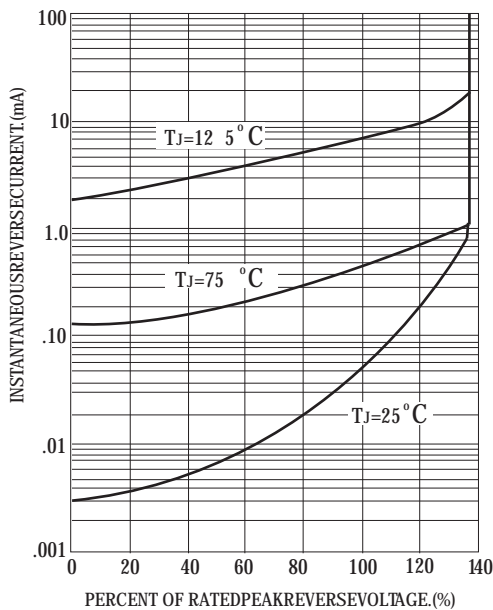


FIG.4-TYPICAL JUNCTION CAPACITANCE

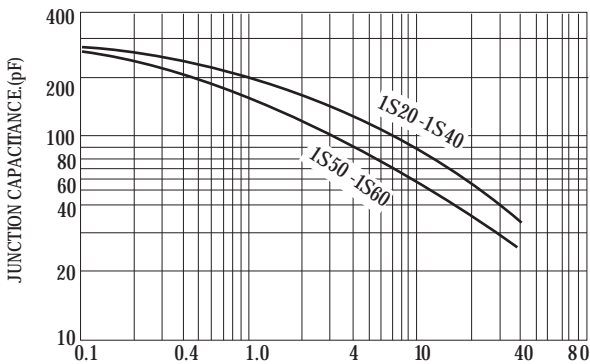


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

