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1S20 THRU 1SA0

1.0 Amp Schottky Barrier Rectifier 20 to 100 Volts

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- High surge capability
- Metal silicon junction, majority carrier conduction

Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Maximum Thermal Resistance: 50°C/W Junction to Lead

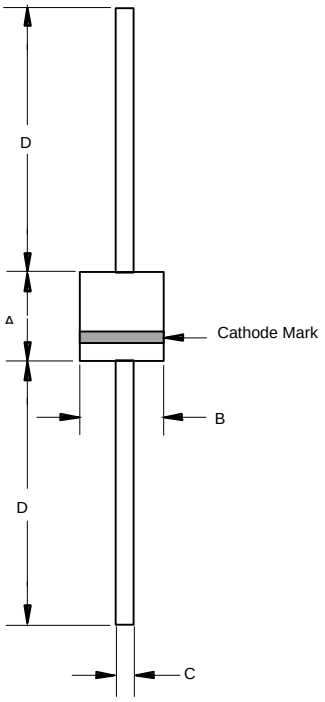
Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1S20	20V	14V	20V
1S30	30V	21V	30V
1S40	40V	28V	40V
1S50	50V	35V	50V
1S60	60V	42V	60V
1S80	80V	56V	80V
1SA0	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0 A	T_C = 75°C
Peak Forward Surge Current	I_{FSM}	35A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 1S20-1S40 1S50-1S60 1S80-1SA0	V_F	 0.55V 0.70V 0.85V	I_{FM} = 1.0A; T_C = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.5mA 10mA	T_C = 25°C T_C = 100°C
Typical Junction Capacitance	C_J	110pF	Measured at 1.0MHz, V_R=4.0V

Pulse Test: Pulse width 300 usec, Duty cycle 1%.

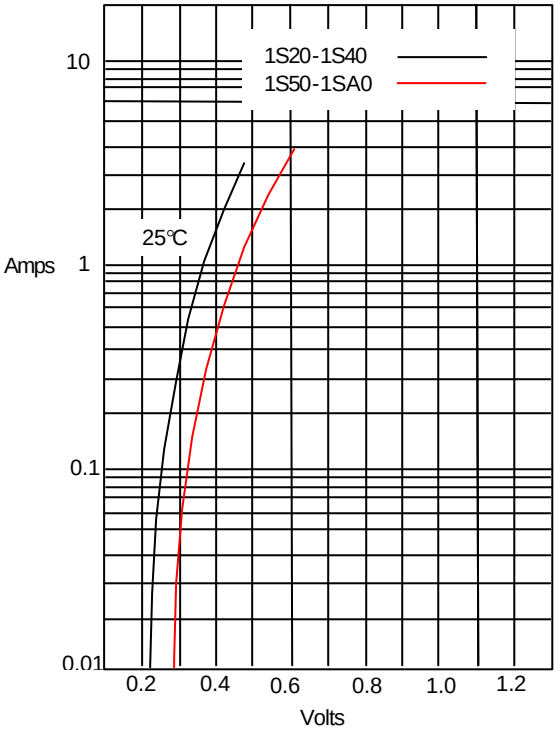
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DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.116	0.140	2.90	3.50	
B	0.091	0.102	2.30	2.60	
C	0.020	0.024	0.50	0.60	
D	0.787	-----	20.00	-----	

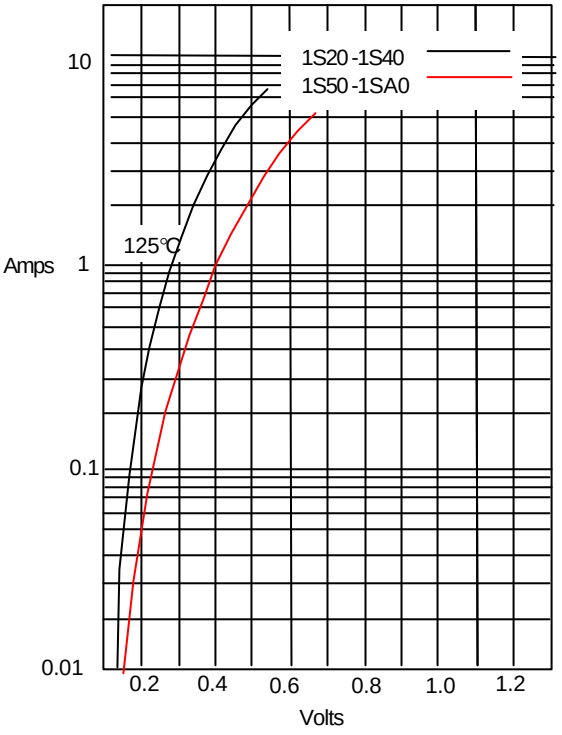
1S20 thru 1SA0

Figure 1
Typical Forward Characteristics @ T_J = 25℃



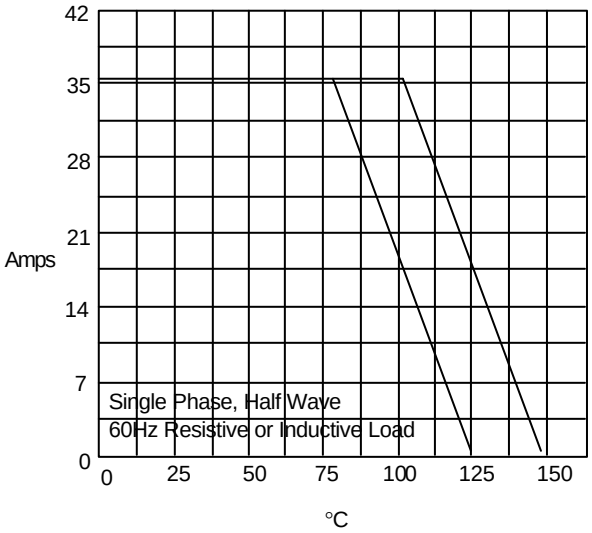
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Forward Characteristics @ T_J = 125℃



Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

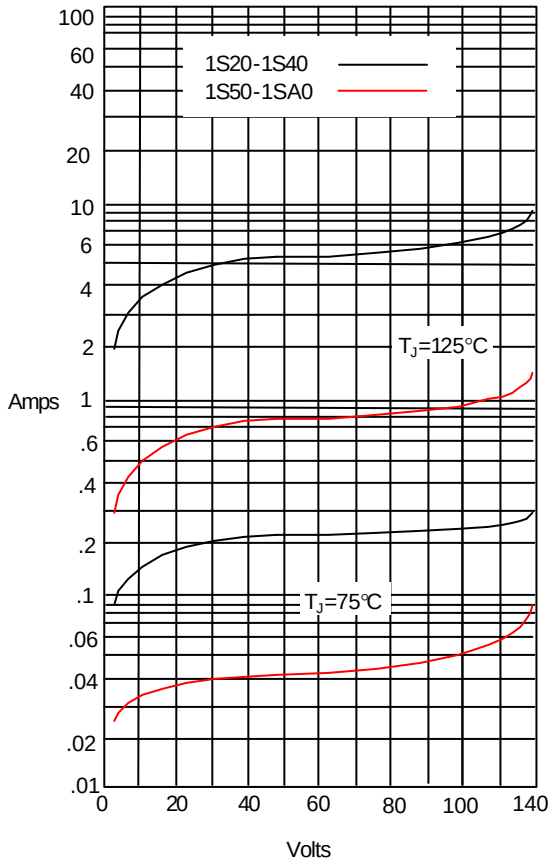
Figure 3
Forward Derating Curve



Average Forward Rectified Current Per Leg - Amperes *versus*
Case Temperature - °C

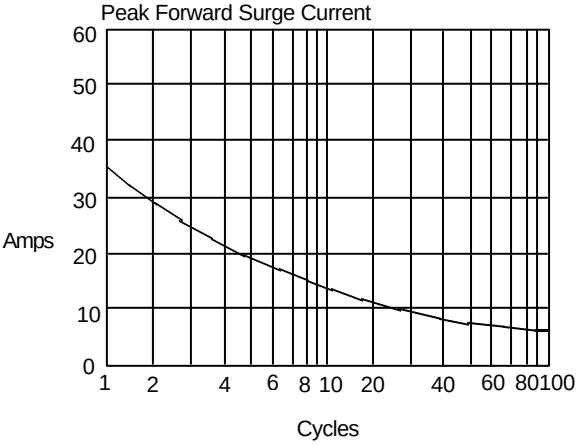
1S20 thru 1SA0

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - Amperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles