



Micro Commercial Components  
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**1S20  
 THRU  
 1SA0**

**Features**

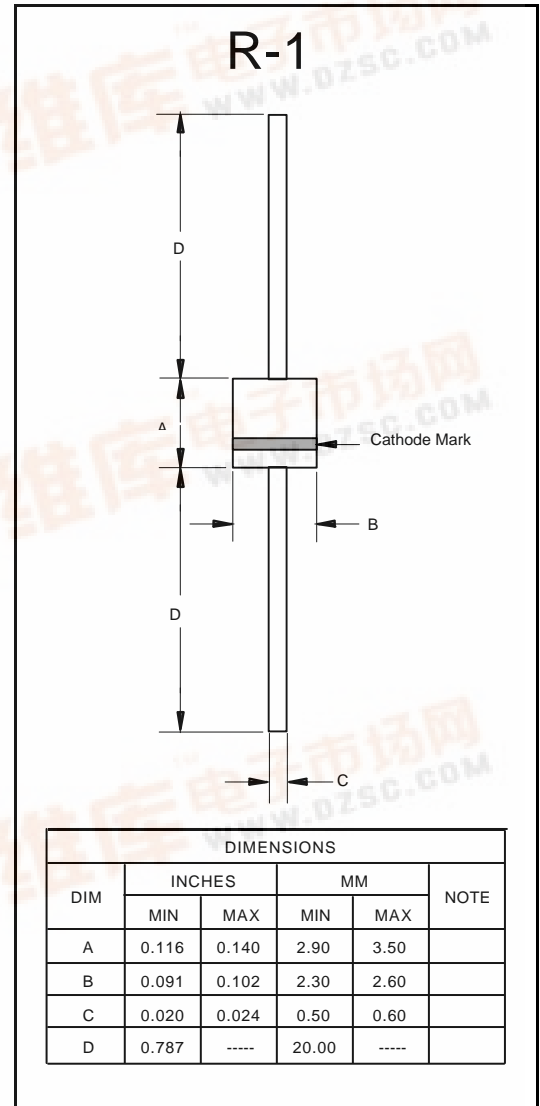
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- High surge capability
- Metal silicon junction, majority carrier conduction

**1.0 Amp Schottky  
 Barrier Rectifier  
 20 to 100 Volts**

**Maximum Ratings**

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 50°C/W Junction to Lead

MCC 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	$T_C = 75^\circ C$
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	$I_{FM} = 1.0A;$ $T_C = 25^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.5mA 10mA	$T_C = 25^\circ C$ $T_C = 100^\circ C$
Typical Junction Capacitance	$C_J$	110pF	Measured at 1.0MHz, $V_R=4.0V$

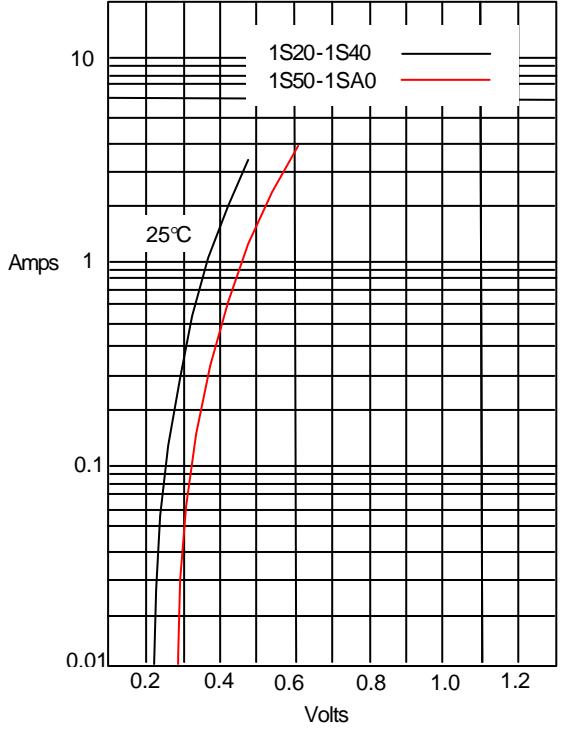
Pulse Test: Pulse width 300 usec, Duty cycle 1%.



# 1S20 thru 1SA0

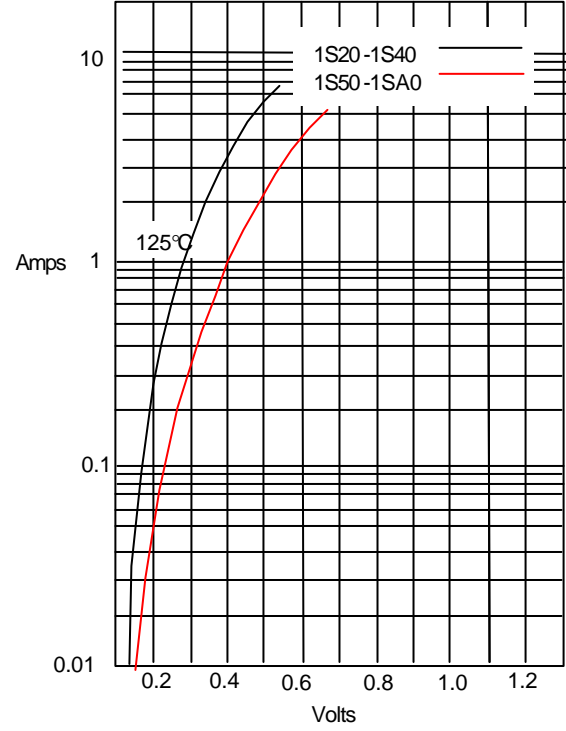


Figure 1  
Typical Forward Characteristics @  $T_J = 25^\circ\text{C}$



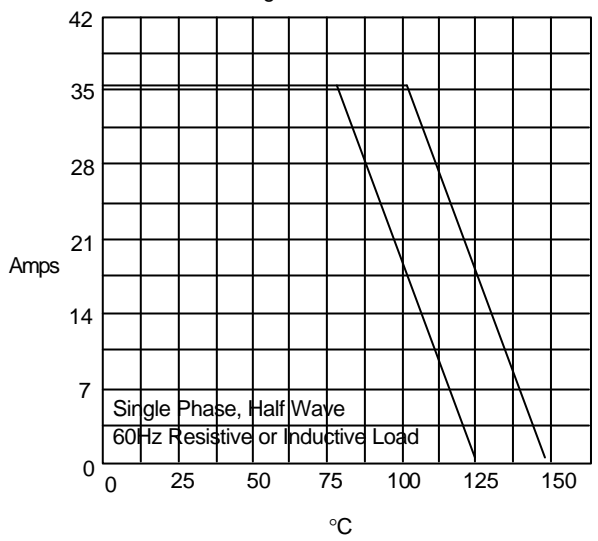
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2  
Typical Forward Characteristics @  $T_J = 125^\circ\text{C}$



Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 3  
Forward Derating Curve

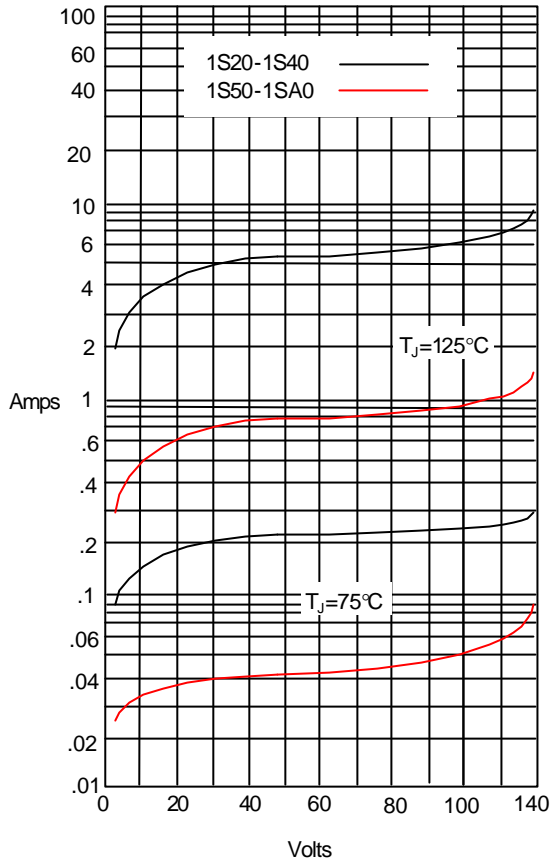


Average Forward Rectified Current Per Leg - Amperes versus Case Temperature - °C

# 1S20 thru 1SA0

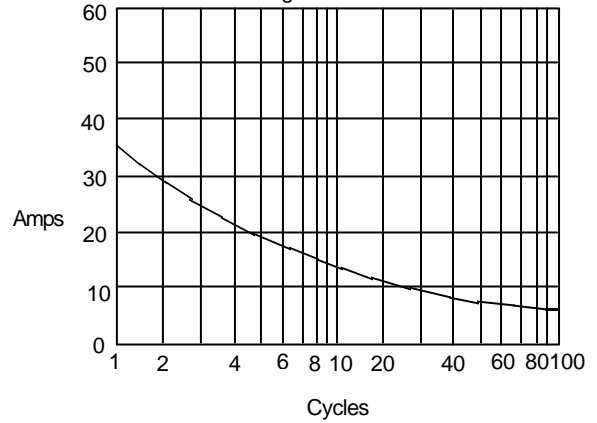


Figure 4  
Typical Reverse Characteristics



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