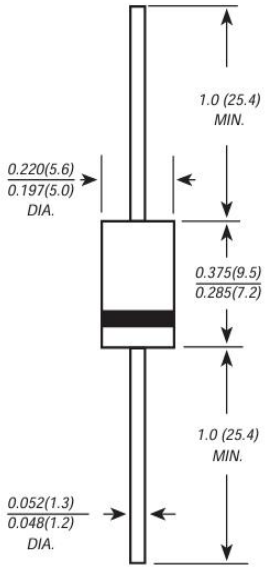
Schottky Barrier Rectifier

Parameter	Value	Unit
V_{RRM}	20~40	V
$I_{F(AV)}$	3.0	A

DO-201AD



Dimensions in inches and (millimeters)

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Maximum Ratings

- Operating Temperature: -55℃ to +125℃
- Storage Temperature: -55℃ to +125℃
- Maximum Thermal Resistance; 28℃/W Junction to Ambient

Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1N5820	20V	14V	20V
1N5821	30V	21V	30V
1N5822	40V	28V	40V

Electrical Characteristics(at TJ = 25℃ unless otherwise specified)

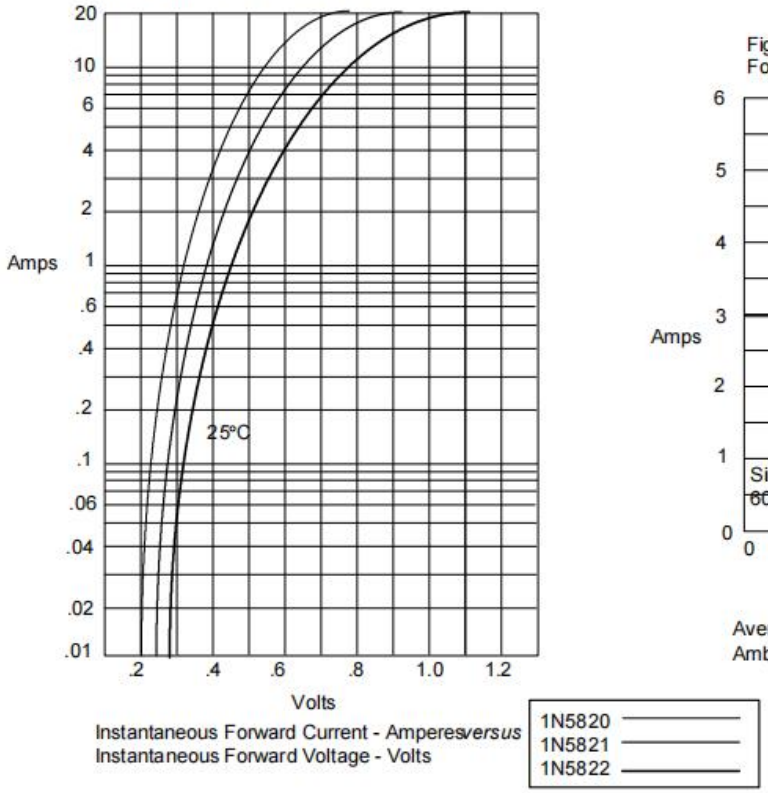
Parameter	Symbol	Value	Conditions
Average Forward Current	$I_{F(AV)}$	3.0A	TA = 85℃
Peak Forward Surge Current	I_{FSM}	80A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 1N5820 1N5821 1N5822	V_F	 475V 500V 525V	 IF = 3.0A; TA = 25℃*(Note 2)
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.5mA 20mA	TA = 25℃ TA = 100℃
Typical Junction Capacitance	C_J	200pF	Measured at 1.0MHz, VR=4.0V

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

2.Pulse test: Pulse width 300 μsec, Duty cycle 1%

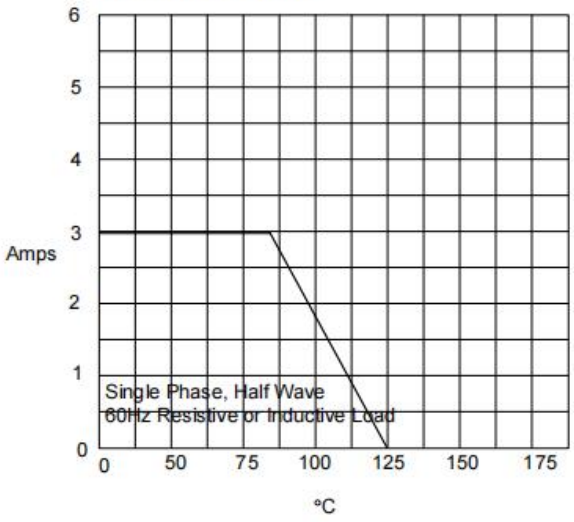
Typical characteristics

Figure 1
Typical Forward Characteristics



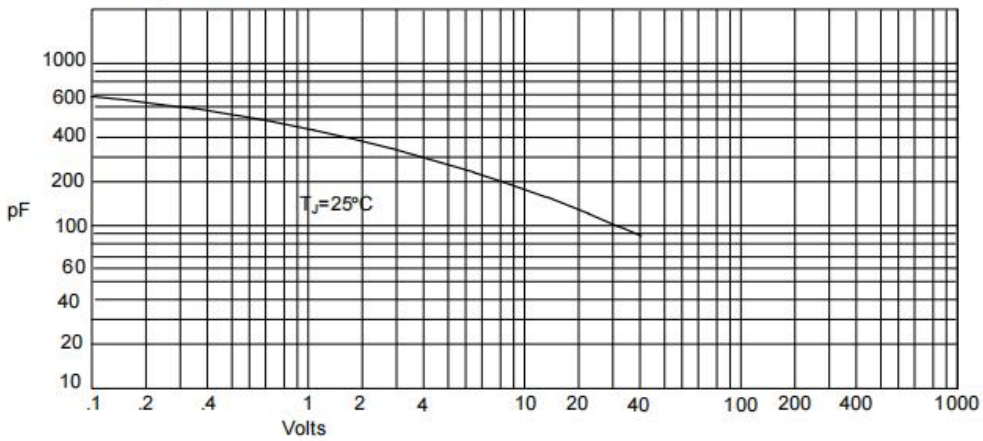
Instantaneous Forward Current - Amperes*versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes*versus*
Ambient Temperature -°C

Figure 3
Junction Capacitance



Junction Capacitance - pF*versus*
Reverse Voltage - Volts

Figure 4
TYPICAL REVERSE CHARACTERISTICS

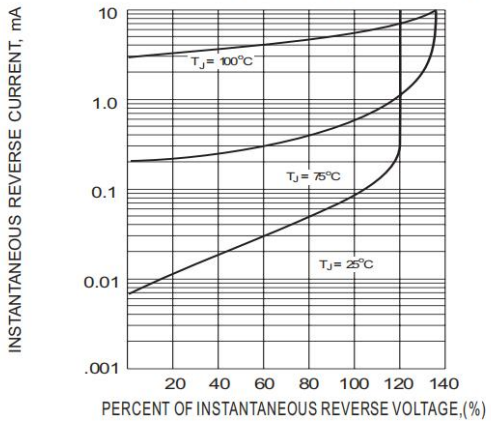
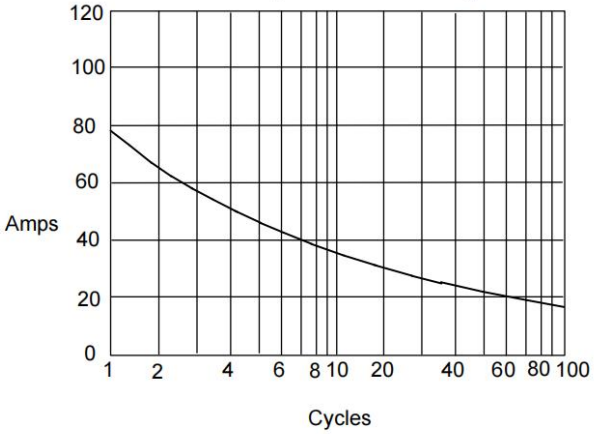


Figure 5
Maximum Non-Repetitive Forward Surge Current



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

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