

### FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

### MAXIMUM RATINGS

Characteristics	Symbol	Value
Storage temperature range	$T_{STG}$	-55 to +150°C
Operating junction temperature range	$T_J$	-55 to +150°C
Maximum thermal resistance	$R_{\theta JL}, L = 3/8''$	52°C/W Junction to lead
Maximum thermal resistance	$R_{\theta JL}, L = 0$	28°C/W Junction to case
Working peak reverse voltage 1N5820 1N5821 1N5822	$V_{RWM}$	20V 30V 40V
Repetitive peak reverse voltage 1N5820 1N5821 1N5822	$V_{RRM}$	20V 30V 40V
Weight		0.032 ounces (1.0 gram) typical

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameters	Symbol	Test Conditions	1N5820	1N5821	1N5822
Average forward current	$I_{F(AV)}$		3A	3A	3A
Case temperature	$T_C$	$R_{\theta JL} = 28^\circ\text{C/W}, L = 0''$	115°C	116°C	117°C
Lead temperature	$T_L$	$R_{\theta JL} = 52^\circ\text{C/W}, L = 3/8''$	85°C	86°C	88°C
Maximum surge current	$I_{FSM}$	8.3 ms, half sine, $T_J = 150^\circ\text{C}$	150A	150A	150A
Maximum peak forward voltage	$V_{FM}$	$I_{FM} = 1\text{A}, T_J = 25^\circ\text{C}^*$	.36V	.37V	.38V
Maximum peak forward voltage	$V_{FM}$	$I_{FM} = 3\text{A}, T_J = 25^\circ\text{C}^*$	.46V	.48V	.50V
Maximum peak forward voltage	$V_{FM}$	$I_{FM} = 9.4\text{A}, T_J = 25^\circ\text{C}^*$	.65V	.67V	.70V
Maximum peak reverse voltage	$I_{RM}$	$V_{RRM}, T_J = 25^\circ\text{C}$	1.5mA	1.5mA	1.5mA
Typical junction capacitance	$C_J$	$V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$	265pF	265pF	265pF

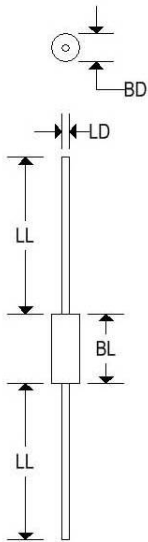
\*Pulse test: Pulse width 300μsec, duty cycle 2%.

# 1N5820-1N5822

## SCHOTTKY RECTIFIERS

### MECHANICAL CHARACTERISTICS

<b>Case:</b>	DO-201A
<b>Marking:</b>	Body painted, alpha-numeric
<b>Polarity:</b>	Cathode band



	DO-201A			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.190	0.260	4.826	6.604
BL	0.285	0.375	7.240	9.530
LD	0.048	0.052	1.219	1.321
LL	1.000	-	25.400	-

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## SCHOTTKY RECTIFIERS

Figure 1  
Typical Forward Characteristics

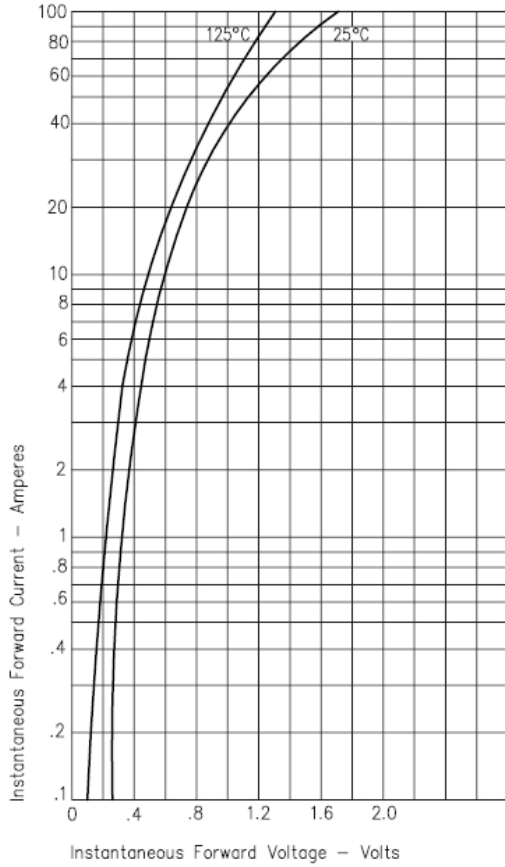


Figure 3  
Typical Junction Capacitance

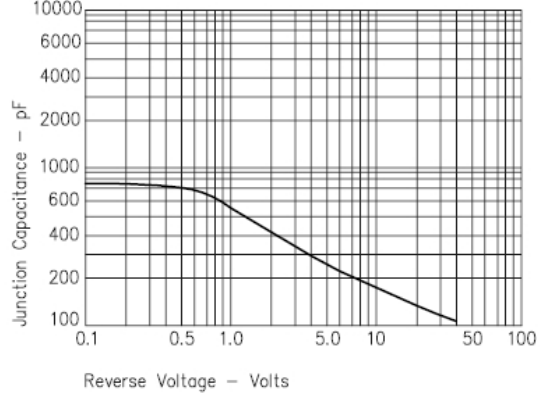


Figure 2  
Typical Reverse Characteristics

