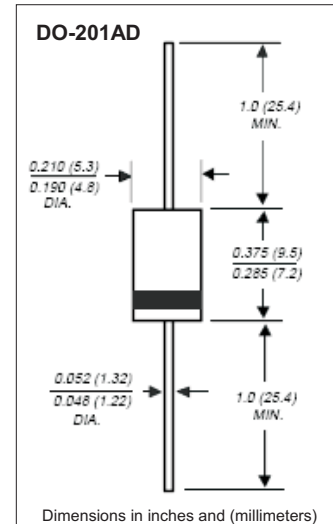


Schottky Barrier Rectifier

1N5820 -1N5822

■ Features

- High current capability ,low forward voltage drop
- Low Power Loss, High Efficiency
- High surge capability



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	1N5820	1N5821	1N5822	Unit
Peak Repetitive Reverse Voltage	V_{RRM}				V
Working Peak Reverse Voltage	V_{RWM}	20	30	40	V
DC Blocking Voltage	V_R				V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current *1 @ $T_L = 95^\circ\text{C}$	I_o	3.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80			A
Forward Voltage *2 @ $I_F = 3.0\text{A}$	V_{FM}	0.475	0.500	0.525	V
@ $I_F = 9.4\text{A}$		0.850	0.900	0.950	
Peak Reverse Leakage Current @ $T_A = 25^\circ\text{C}$	I_{RM}	2.0			mA
at Rated DC Blocking Voltage *2 @ $T_A = 100^\circ\text{C}$		20			
Typical Thermal Resistance *3	$R_{\theta JA}$	40			$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	10			$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to 125			$^\circ\text{C}$

*1. Measured at ambient temperature at a distance of 9.5mm from the case.

*2. Short duration test pulse used to minimize self-heating effect.

*3. Thermal resistance from junction to lead vertical P.C.B. mounted, 0.500" (9.5mm) lead length with 2.5 X 2.5" (63.5 X 63.5mm) copper pads.

1N5820 -1N5822

■ Typical Characteristics

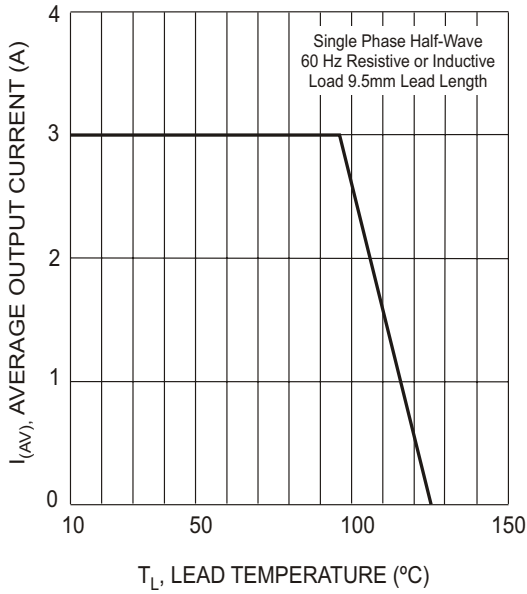


Fig. 1 Forward Current Derating Curve

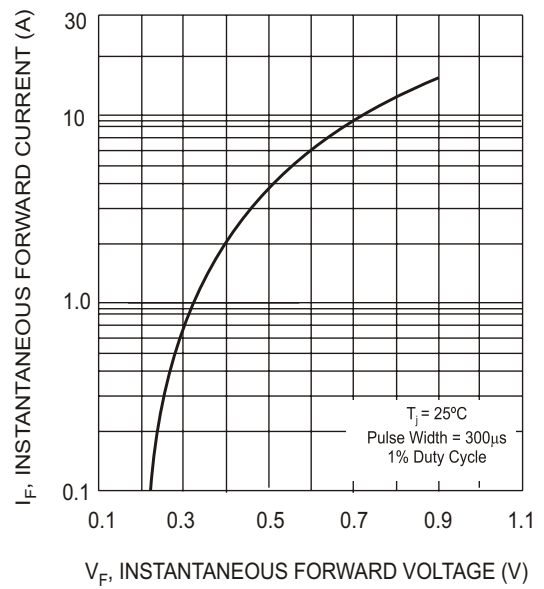


Fig. 2 Typical Forward Voltage Characteristics

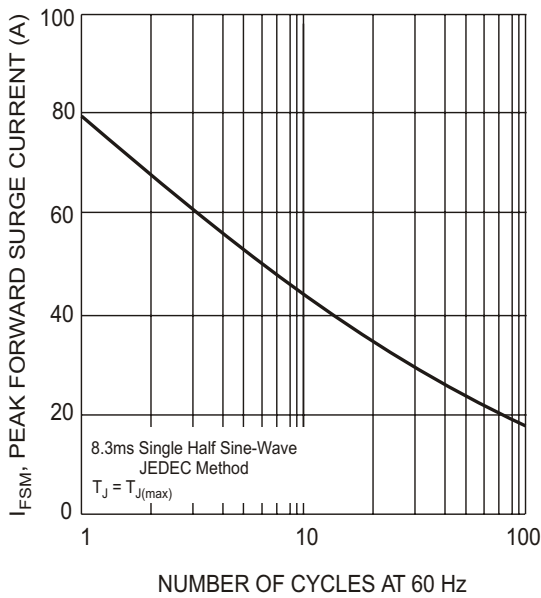


Fig. 3 Peak Forward Surge Current

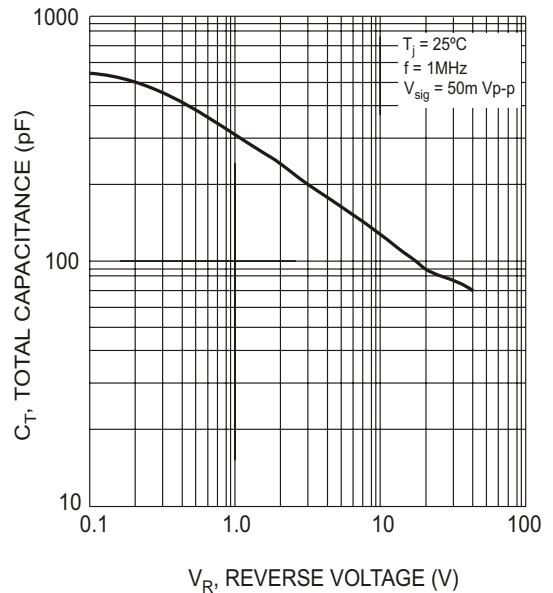


Fig. 4 Typical Total Capacitance