

# DGP30W

## DAMPER SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE:1500V

CURRENT: 3.0A

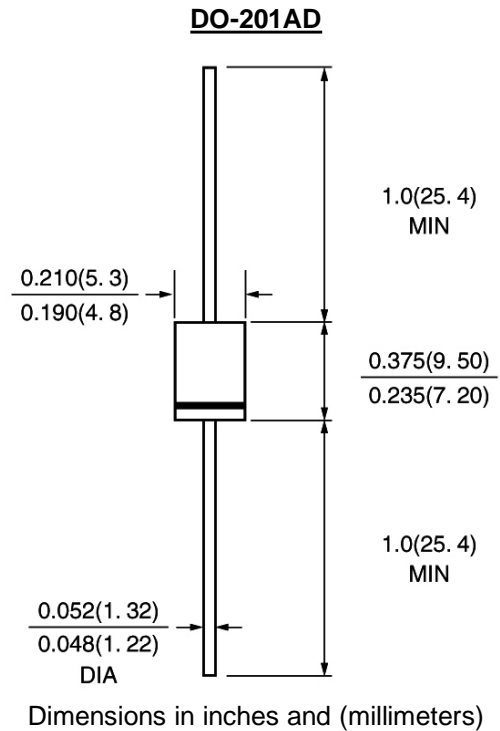


### FEATURE

Specially designed for clamping circuits, horizontal deflection systems and damper applications  
High temperature metallurgically bonded construction  
3.0 ampere operation at  $T_a=50^{\circ}\text{C}$  with no thermal runaway  
Sintered glass cavity free junction  
Capable of meeting environmental standard of MIL-S-19500  
High temperature soldering guaranteed  
 $350^{\circ}\text{C} / 10\text{sec} / 0.375''$  lead length at 5 lbs tension  
Operate at  $T_a = 55^{\circ}\text{C}$  with no thermal run away  
Typical  $I_r < 0.1\mu\text{A}$

### MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

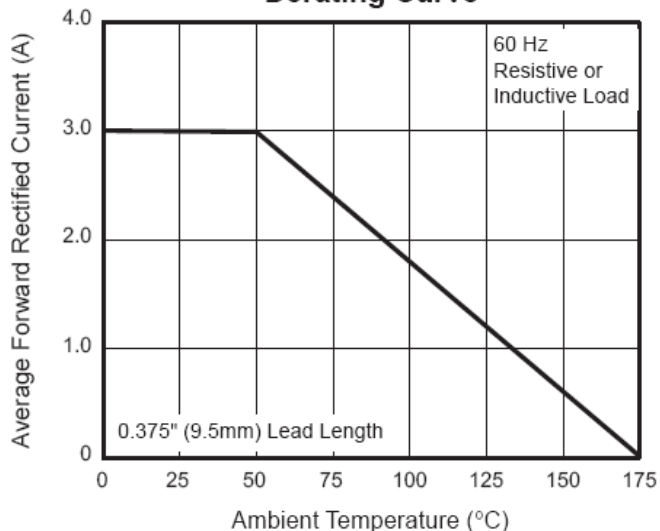
(single-phase, half-wave, 60HZ, resistive or inductive load rating at  $25^{\circ}\text{C}$ , unless otherwise stated, for capacitive load, derate current by 20%)

	SYMBOL	DGP30W	units
Maximum Recurrent Peak Reverse Voltage	$V_{rrm}$	1500	V
Maximum RMS Voltage	$V_{rms}$	1050	V
Maximum DC blocking Voltage	$V_{dc}$	1500	V
Maximum Average Forward Rectified Current 3/8" lead length at $T_a = 50^{\circ}\text{C}$	$I_{f(av)}$	3.0	A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load at $T_a = 50^{\circ}\text{C}$	$I_{fsm}$	100.0	A
Maximum Instantaneous Forward Voltage at 3.0A	$V_f$	1.2	V
Maximum full load reverse current full cycle average 0.375"(9.5mm) lead length at $T_a = 70^{\circ}\text{C}$	$I_r(av)$	200.0	$\mu\text{A}$
Maximum DC Reverse Current at rated DC blocking voltage	$I_r$	5.0 100.0	$\mu\text{A}$
Typical Reverse Recovery Time (Note 1)	$T_{rr}$	1.0	$\mu\text{S}$
Typical Junction Capacitance (Note 2)	$C_j$	40.0	pF
Typical Thermal Resistance (Note 3)	$R_{th(ja)}$	20.0	$^{\circ}\text{C}/\text{W}$
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-65 to +175	$^{\circ}\text{C}$

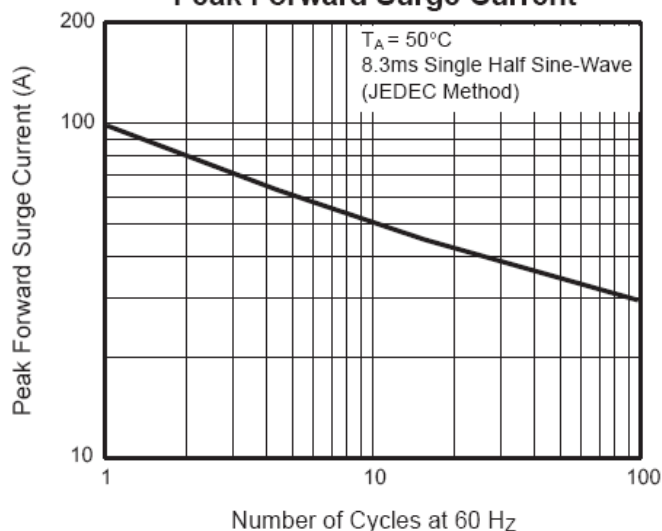
Note:

1. Reverse Recovery Condition  $I_f = 0.5\text{A}$ ,  $I_r = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 0.375"(9.5mm) lead length, with leads attached to heat sink

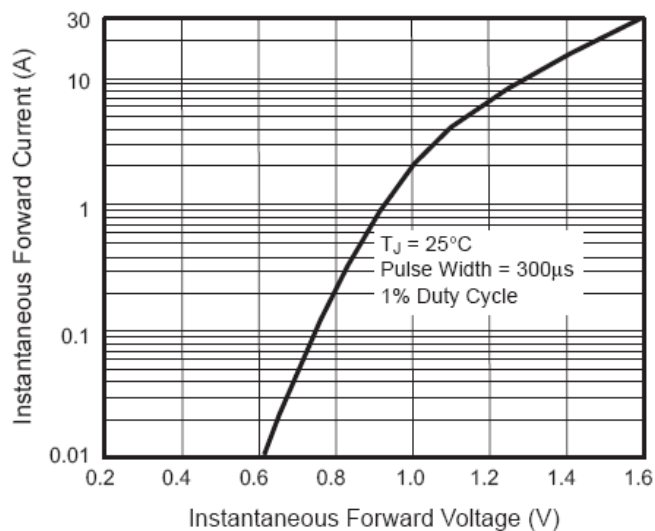
**Fig. 1 – Forward Current Derating Curve**



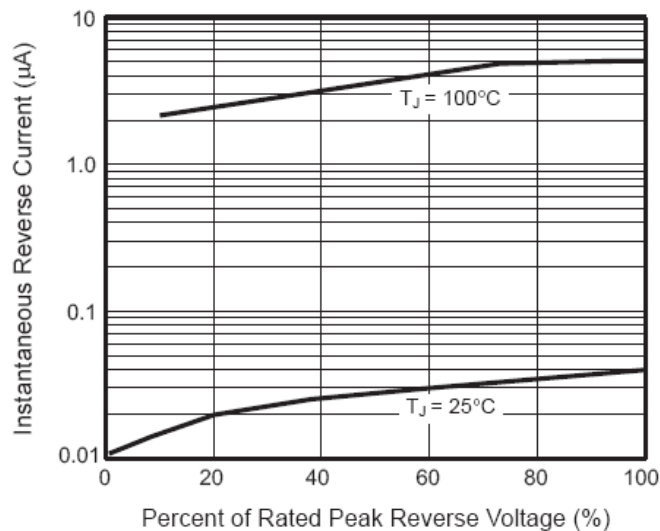
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

