

# 1N4001-1N4007

## PLASTIC GLASS PASSIVATED RECTIFIERS

### 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

Characteristic	Value	Unit
<b>Maximum recurrent peak reverse voltage</b>		Volts
1N4001	50	
1N4002	100	
1N4003	200	
1N4004	400	
1N4005	600	
1N4006	800	
1N4007	1000	
<b>Maximum RMS voltage</b>		Volts
1N4001	35	
1N4002	70	
1N4003	140	
1N4004	280	
1N4005	420	
1N4006	560	
1N4007	700	
<b>Maximum DC blocking voltage</b>		Volts
1N4001	50	
1N4002	100	
1N4003	200	
1N4004	400	
1N4005	600	
1N4006	800	
1N4007	1000	
<b>Operating &amp; Storage Temperature</b>	-55 to +150	°C
<b>Maximum thermal resistance, junction to lead :</b>	20	°C/W
<b>Maximum thermal resistance, junction to ambient:</b>	100	°C/W

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

Part number	Average forward current	Peak forward surge current	Maximum instantaneous forward voltage	Maximum DC reverse current at rated DC blocking voltage		Typical junction capacitance
	$I_{F(AV)}$	$I_{FSM}$	$V_F$	$I_R$		$C_J$
	$T_A = 75^\circ\text{C}$	8.3ms half sine	$I_{FM} = 1.0A,$ $T_J = 25^\circ\text{C}^{(1)}$	$T_J = 25^\circ\text{C}$	$T_J = 125^\circ\text{C}$	Measured at 1MHz, $V_R = 4.0V$
	Amps	Amps	Volts	$\mu A$	$\mu A$	pF
1N4001	1.0	30	1.1	5.0	50	15
1N4002	1.0	30	1.1	5.0	50	15
1N4003	1.0	30	1.1	5.0	50	15

# 1N4001-1N4007

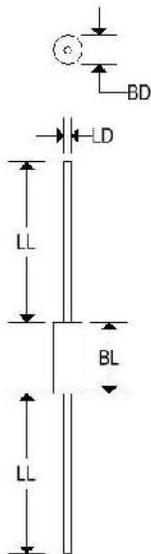
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	Amps	Amps	Volts	$\mu A$	$\mu A$	pF
1N4004	1.0	30	1.1	5.0	50	15
1N4005	1.0	30	1.1	5.0	50	15
1N4006	1.0	30	1.1	5.0	50	15
1N4007	1.0	30	1.1	5.0	50	15

### MECHANICAL CHARACTERISTICS

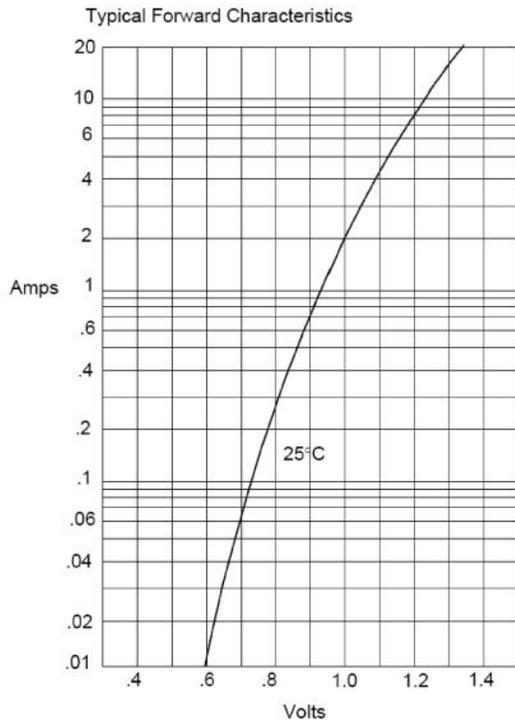
Case:	DO-41 Plastic
Polarity:	Cathode band
Marking:	Alpha numeric



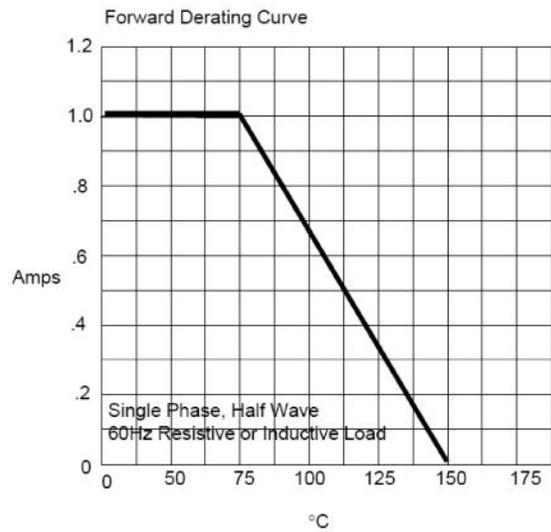
	DO-41			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.107	-	2.720
BL	-	0.205	-	5.207
LD	0.026	0.034	0.711	3.684
LL	1.000	-	25.400	-

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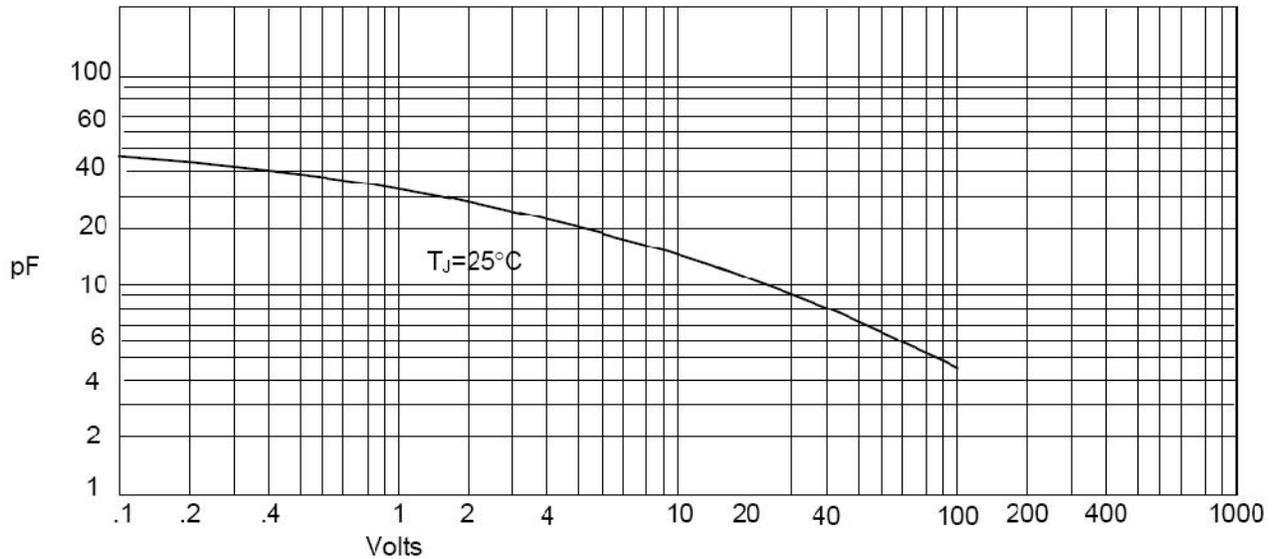


Instantaneous Forward Current - Amperes/versus  
Instantaneous Forward Voltage - Volts



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

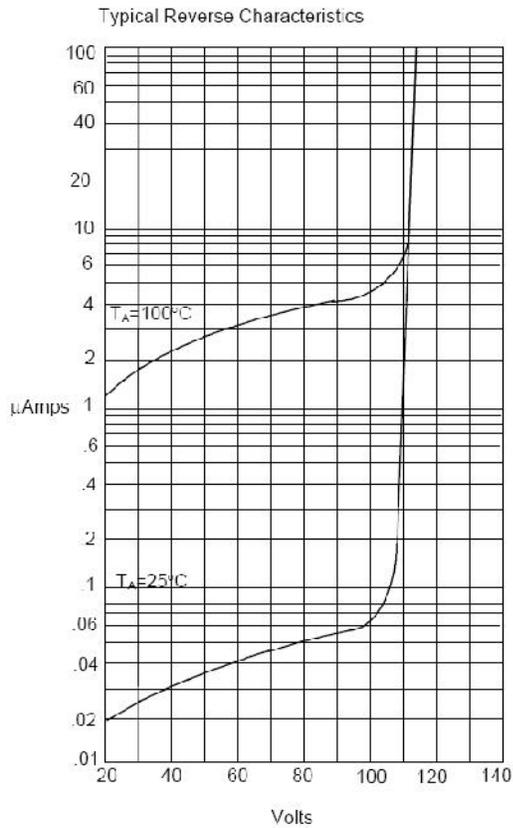
### Junction Capacitance



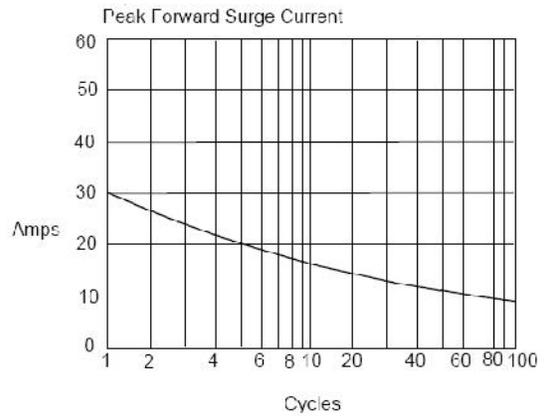
Junction Capacitance - pF/versus  
Reverse Voltage - Volts

# 1N4001-1N4007

## PLASTIC GLASS PASSIVATED RECTIFIERS



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts



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