

DIGITRON SEMICONDUCTORS

1N4001 – 1N4007

STANDARD RECOVERY RECTIFIERS

MAXIMUM RATINGS

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

ELECTRICAL CHARACTERISTICS

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
	$T_A = 75^\circ C$	8.3ms half sine	$I_{FM} = 1.0A,$ $T_J = 25^\circ C^{(1)}$	$T_J = 25^\circ C$	$T_J = 125^\circ C$	Measured at 1MHz, $V_R = 4.0V$
	Amps	Amps	Volts	μA	μA	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
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

Note 1: Pulse test: Pulse width 300 μ sec, duty cycle 2%.

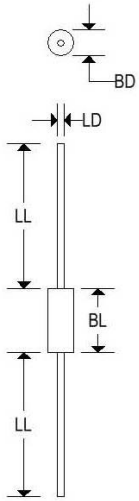
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MECHANICAL CHARACTERISTICS

Case:	DO-41
Polarity:	Cathode band
Marking:	Body painted, alpha numeric

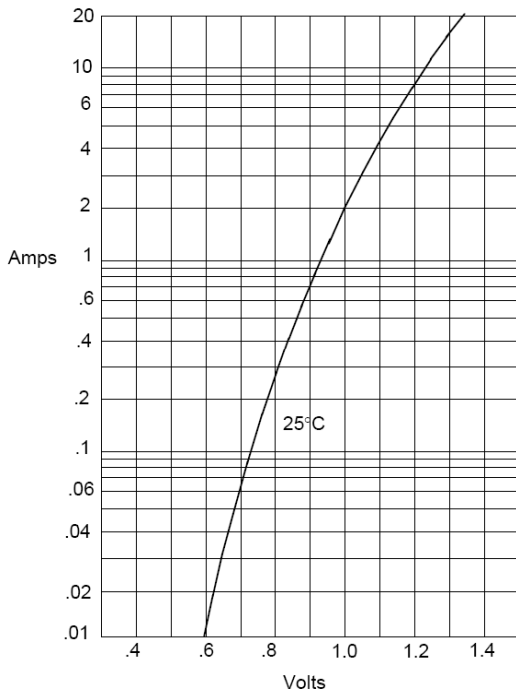


	DO-41			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.107	-	2.720
BL	-	0.205	-	5.207
LD	0.028	0.034	0.711	0.864
LL	1.000	-	25.400	-

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix)

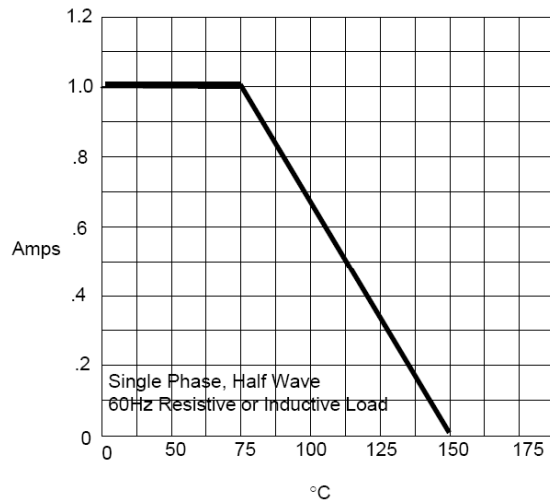
Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Forward Derating Curve



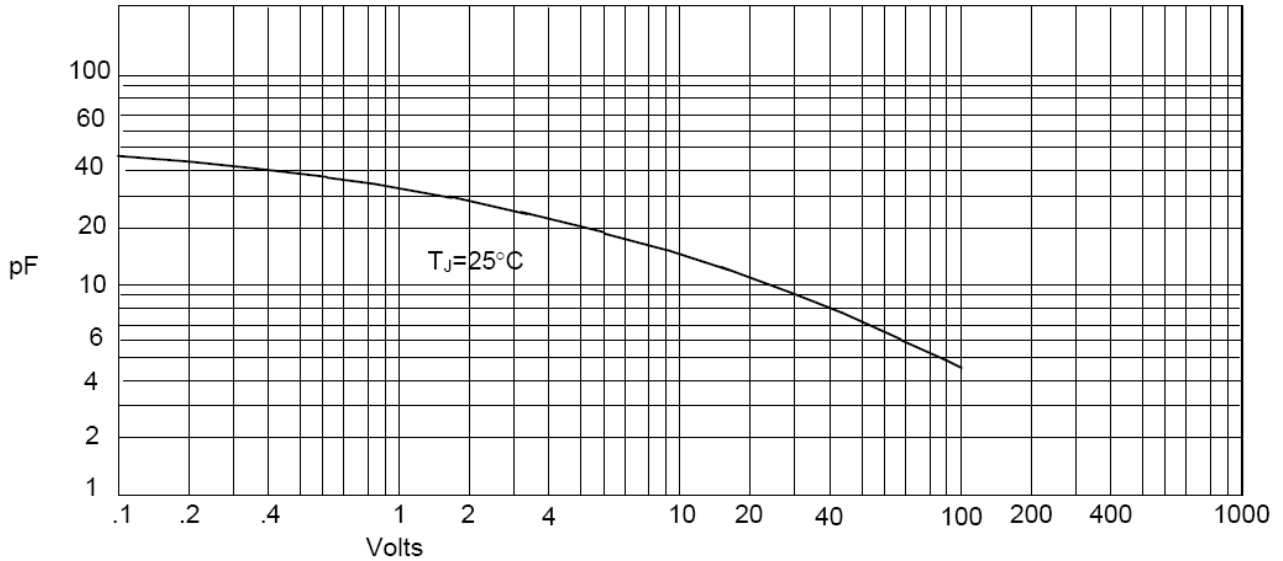
Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

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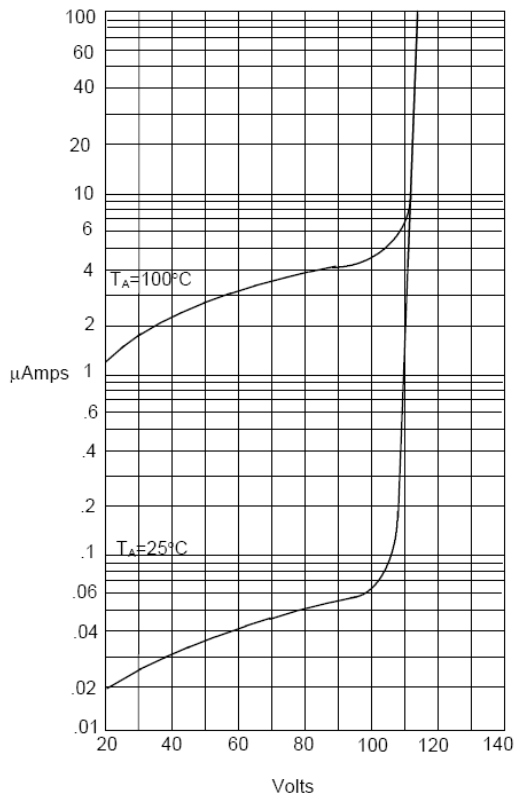
STANDARD RECOVERY RECTIFIERS

Junction Capacitance

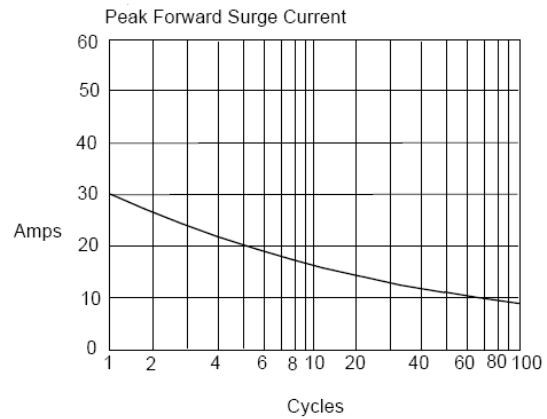


Junction Capacitance - pF versus Reverse Voltage - Volts

Typical Reverse Characteristics



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