

DIGITRON SEMICONDUCTORS

1N4933-1N4937

AXIAL-LEAD FAST RECOVERY RECTIFIERS

MAXIMUM RATINGS

Rating	Symbol	1N4933	1N4934	1N4935	1N4936	1N4937	Unit
Peak repetitive reverse voltage	V_{RRM}						
Working peak reverse voltage	V_{RWM}	50	100	200	400	600	Volts
DC blocking voltage	V_R						
Non-repetitive peak reverse voltage	V_{RSM}	75	150	250	450	650	Volts
RMS reverse voltage	$V_{R(RMS)}$	35	70	140	280	420	
Average rectified forward current (single phase, resistive load, $T_A = 75^\circ\text{C}$) ⁽¹⁾	I_O	1.0					Amp
Non-repetitive peak surge current (surge applied at rated load conditions)	I_{FSM}	30					Amps
Operating junction temperature range	T_J	-65 to +150					°C
Storage temperature range	T_{stg}						

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal resistance, junction to ambient (typical printed circuit board mounting)	$R_{\theta JC}$	65	°C/W

Note 1: Derate by 20% for capacitive loads.

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Instantaneous forward voltage ($I_F = 3.14\text{A}$, $T_J = 125^\circ\text{C}$)	V_F	-	1.0	1.2	Volts
Forward voltage ($I_F = 1.0\text{A}$, $T_A = 25^\circ\text{C}$)	V_F	-	1.0	1.1	Volts
Reverse current (rated dc voltage) $T_A = 25^\circ\text{C}$	I_R	-	1.0	5.0	μA
$T_A = 100^\circ\text{C}$		-	50	100	

REVERSE RECOVERY CHARACTERISTICS

Reverse recovery time ($I_F = 1.0\text{A}$ to $V_R = 30\text{Vdc}$) ($I_{FM} = 15\text{A}$, $di/dt = 10\text{A}/\mu\text{s}$)	t_{rr}	-	150 175	200 300	ns
Reverse recovery current ($I_F = 1.0\text{A}$ to $V_R = 30\text{Vdc}$)	$I_{RM(REC)}$	-	1.0	2.0	Amps

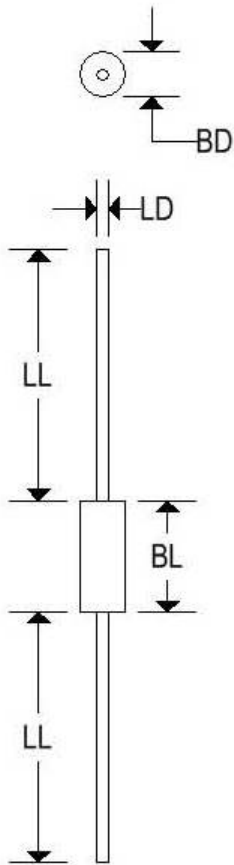
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MECHANICAL CHARACTERISTICS

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



	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.