

DIGITRON SEMICONDUCTORS

1N4450

SWITCHING RECTIFIER

MAXIMUM RATINGS

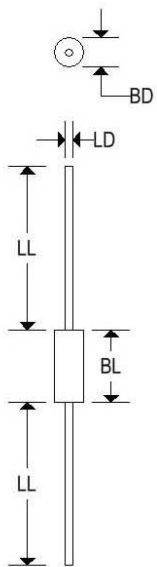
Rating	Symbol	Value	Unit
Maximum peak reverse voltage	V_{RM}	40	V
Maximum reverse voltage	V_R	30	V
Maximum forward DC current	I_F	250	mA
Maximum average forward current	$I_{F(AV)}$	200	mA
Maximum surge forward current @ $t_p = 1\mu s$	I_{FSM}	4	A
Power dissipation	P_D	500	mW
Maximum junction temperature	T_J	200	°C
Storage temperature range	T_{stg}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$)

Parameter	Symbol	Test Condition	Min	Max	Unit
Reverse current	I_R	$V_R = 30V$	-	50	nA
		$V_R = 30V, T_J = 150^\circ C$	-	50	μA
Forward voltage	V_F	$I_F = 0.1mA$	0.42	0.54	V
		$I_F = 1.0mA$	0.52	0.64	
		$I_F = 10mA$	0.64	0.72	
		$I_F = 50mA$	0.80	0.92	
		$I_F = 200mA$	-	1.00	
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 5\mu A$ (pulsed)	40	-	V
Diode capacitance	C_d	$f = 1MHz, V_R = 0$	-	4	pF
Reverse recovery	t_{rr}	$I_F = 10mA, V_R = 6V, R_L = 100\Omega$	-	4	ns

MECHANICAL CHARACTERISTICS

Case	DO-35
Marking	Body painted, alpha-numeric
Polarity	Cathode band



	DO-35			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.055	0.090	1.400	2.290
BL	0.120	0.200	3.050	5.080
LD	0.018	0.022	0.460	0.560
LL	1.000	1.500	25.400	38.100

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

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

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FIG1. - FORWARD CURRENT VS. FORWARD VOLTAGE

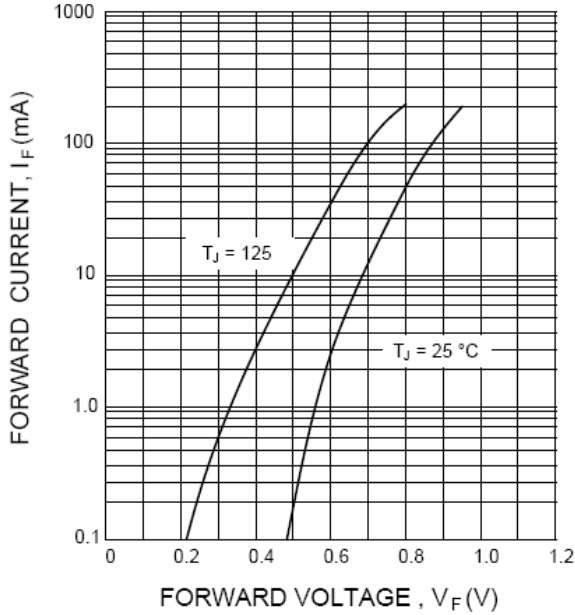


FIG.2 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

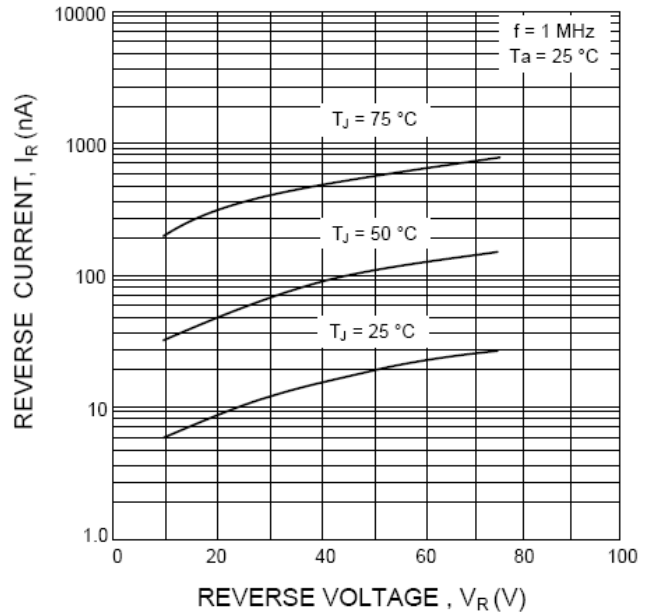


FIG3. - CAPACITANCE BETWEEN TERMINALS VS. REVERSE VOLTAGE

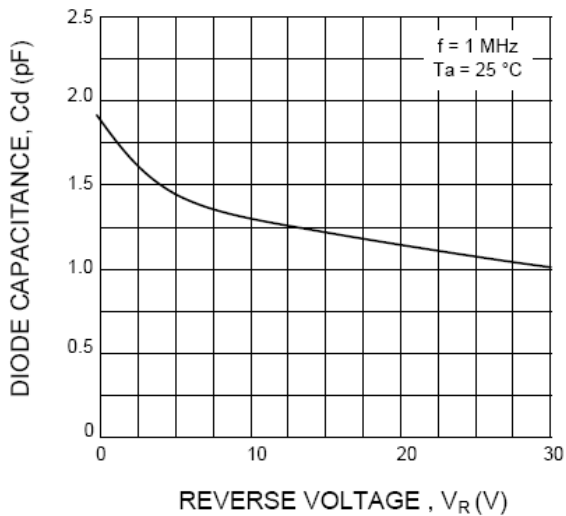


FIG. 4 - REVERSE RECOVERY TIME VS. FORWARD CURRENT

