

DIGITRON SEMICONDUCTORS

1N5059-1N5062

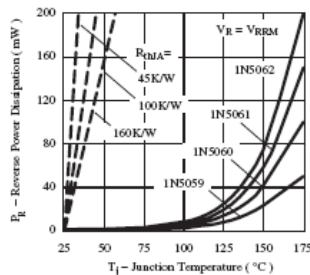
STANDARD AVALANCHE SINTERGLASS DIODE

MAXIMUM RATINGS

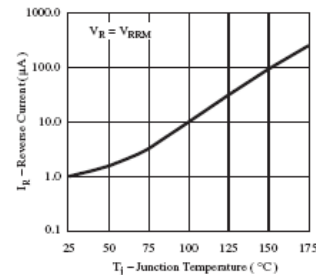
Parameter	Test condition	Sub type	Symbol	Value	Unit
Reverse voltage = repetitive peak reverse voltage		1N5059	$V_R = V_{RRM}$	200	V
		1N5060		400	
		1N5061		600	
		1N5062		800	
Peak forward surge current	$t_p = 10\text{ms}$, half sinewave		I_{FSM}	50	A
Average forward current	$R_{thJA} = 45\text{ K/W}$, $T_{amb} = 50^\circ\text{C}$		I_{FAV}	2	A
	$R_{thJA} = 100\text{ K/W}$, $T_{amb} = 75^\circ\text{C}$			0.8	
Junction and storage temperature range			T_J, T_{stg}	-55 to +175	$^\circ\text{C}$
Maximum pulse energy in avalanche mode, non repetitive (inductive load switch off)	$I_{(BR)R} = 1\text{ A}$, inductive load		E_R	20	mJ
Junction ambient	Lead length $l = 10\text{mm}$, $T_L = \text{constant}$		R_{thJA}	45	K/W
	On PC board with spacing 25 mm			100	

ELECTRICAL CHARACTERISTICS

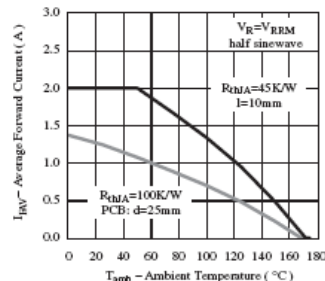
Parameter	Test condition	Sub type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 1\text{A}$		V_F			1	V
	$I_F = 2.5\text{A}$					1.15	
Reverse current	$V_R = V_{RRM}$		I_R			1	μA
	$V_R = V_{RRM}$, $T_J = 100^\circ\text{C}$					10	
	$V_R = V_{RRM}$, $T_J = 150^\circ\text{C}$					100	
Reverse breakdown voltage	$I_R = 100\mu\text{A}$	1N5059	$V_{(BR)R}$			225	V
		1N5060				450	
		1N5061				650	
		1N5062				900	
Reverse recovery time	$I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_R = 0.25\text{A}$		t_{rr}			4	μs
Diode capacitance	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$		C_D		40		pF



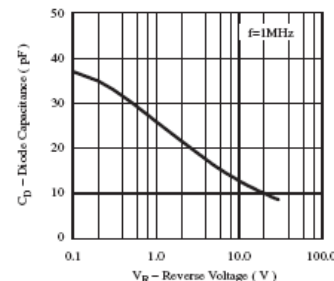
Max. Reverse Power Dissipation vs. Junction Temperature



Max. Reverse Current vs. Junction Temperature



Max. Average Forward Current vs. Ambient Temperature

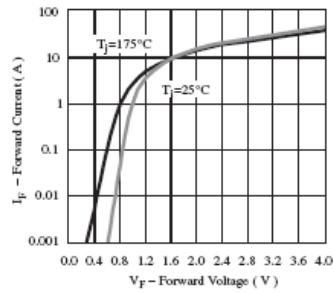


Typ. Diode Capacitance vs. Reverse Voltage

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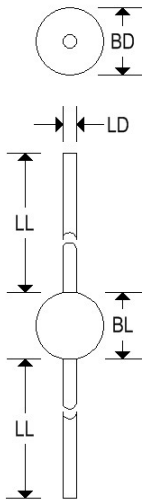
STANDARD AVALANCHE SINTERGLASS DIODE



Max. Forward Current vs. Forward Voltage

MECHANICAL CHARACTERISTICS

Case	SOD-57, sintered glass
Marking	Body painted, alpha numeric
Polarity	Cathode band



	SOD-57			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.142	-	3.600
BL	-	0.157	-	4.000
LD	-	0.032	-	0.820
LL	1.024	-	26.000	-

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.