

# DIGITRON SEMICONDUCTORS

1N5059-1N5062

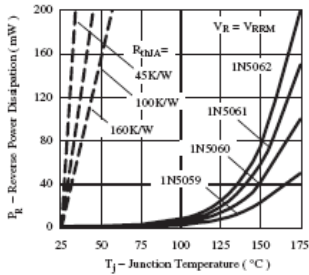
STANDARD AVALANCHE SINTERGLASS DIODE

## MAXIMUM RATINGS

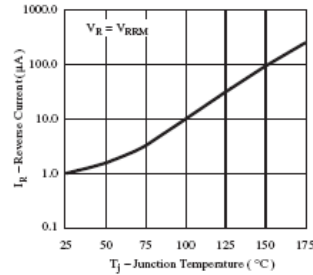
Parameter	Test condition	Sub type	Symbol	Value	Unit
Reverse voltage = repetitive peak reverse voltage		1N5059	$V_R = V_{RRM}$	200	V
		1N5060		400	
		1N5061		600	
		1N5062		800	
Peak forward surge current	$t_p = 10\text{ms}$ , half sinewave		$I_{FSM}$	50	A
Average forward current	$R_{thJA} = 45\text{ K/W}$ , $T_{amb} = 50^\circ\text{C}$		$I_{FAV}$	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

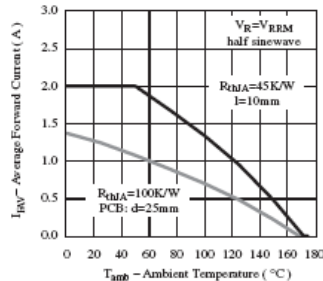
Parameter	Test condition	Sub type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 1\text{ A}$		$V_F$			1	V
	$I_F = 2.5\text{ A}$					1.15	
Reverse current	$V_R = V_{RRM}$		$I_R$			1	$\mu\text{A}$
	$V_R = V_{RRM}$ , $T_J = 100^\circ\text{C}$					10	
	$V_R = V_{RRM}$ , $T_J = 150^\circ\text{C}$					100	
Reverse breakdown voltage	$I_R = 100\mu\text{A}$	1N5059	$V_{(BR)R}$	225		1600	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	$\mu\text{s}$
Diode capacitance	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$		$C_D$		40		pF



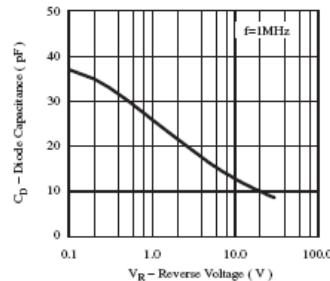
Max. Reverse Power Dissipation vs. Junction Temperature



Max. Reverse Current vs. Junction Temperature



Max. Average Forward Current vs. Ambient Temperature

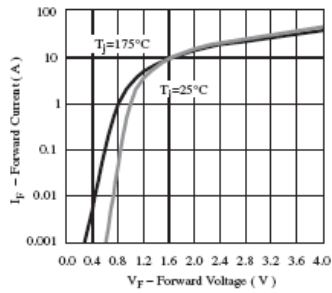


Typ. Diode Capacitance vs. Reverse Voltage

# DIGITRON SEMICONDUCTORS

1N5059-1N5062

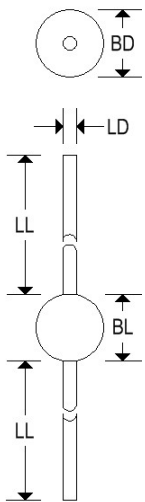
STANDARD AVALANCHE SINTERGLASS DIODE



Max. Forward Current vs. Forward Voltage

## MECHANICAL CHARACTERISTICS

<b>Case</b>	SOD-57, sintered glass
<b>Marking</b>	Body painted, alpha numeric
<b>Polarity</b>	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.