DIGITRON SEMICONDUCTORS

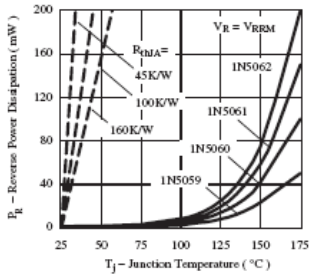
1N5059-1N5062 STANDARD AVALANCHE SINTERGLASS DIODE

MAXIMUM RATINGS

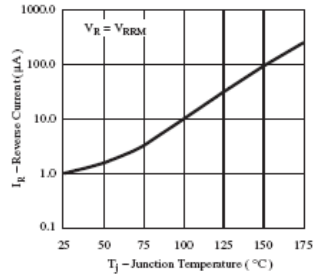
Parameter	Test condition	Sub type	Symbol	Value	Unit
Reverse voltage = repetitive peak reverse voltage		1N5059	$V_R = V_{RRM}$	200	V
		1N5060		400	
		1N5061		600	
		1N5062		800	
Peak forward surge current	t_p = 10ms, half sinewave		I_{FSM}	50	A
Average forward current	R_{thJA} = 45 K/W, T_{amb} = 50°C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

ELECTRICAL CHARACTERISTICS

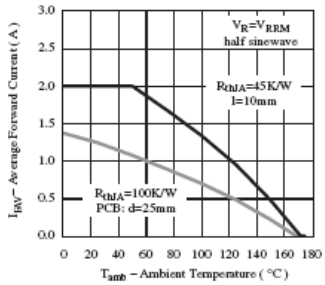
Parameter	Test condition	Sub type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 1A		V_F			1	V
	I_F = 2.5A					1.15	
Reverse current	$V_R = V_{RRM}$		I_R			1	µA
	$V_R = V_{RRM}$, T_J = 100°C					10	
	$V_R = V_{RRM}$, T_J = 150°C					100	
Reverse breakdown voltage	I_R = 100µA	1N5059	$V_{(BR)R}$	225		1600	V
		1N5060		450			
		1N5061		650			
		1N5062		900			
Reverse recovery time	I_F = 0.5A, I_R = 1A, I_R = 0.25A		t_{rr}			4	µs
Diode capacitance	V_R = 0 V, f = 1 MHz		C_D		40		pF



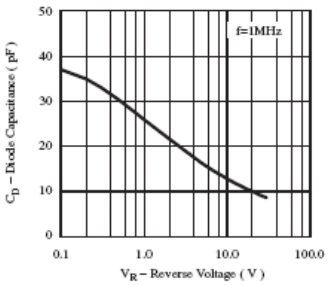
Max. Reverse Power Dissipation vs. Junction Temperature



Max. Reverse Current vs. Junction Temperature



Max. Average Forward Current vs. Ambient Temperature



Typ. Diode Capacitance vs. Reverse Voltage

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D I G I T R O N S E M I C O N D U C T O R S

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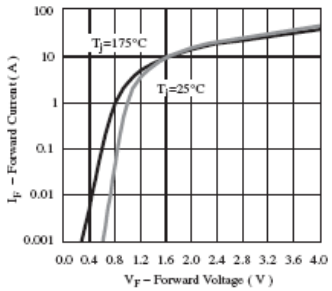
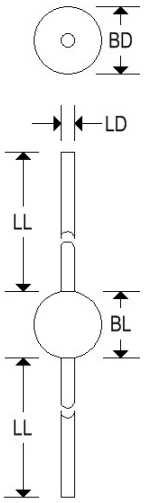


Max. Forward Current vs. Forward Voltage

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.

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