

1N659 • 1N660 • 1N661

GENERAL PURPOSE DIFFUSED SILICON PLANAR* DIODES.

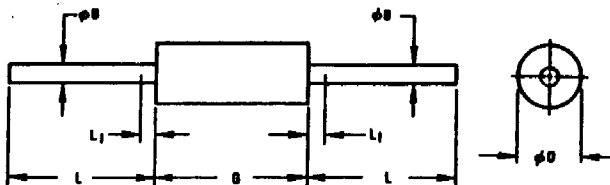
- $V_F \dots 1.0 \text{ V (MAX) @ } 6.0 \text{ mA}$
- $t_{rr} \dots 300 \text{ ns (MAX)}$

ABSOLUTE MAXIMUM RATINGS (Note 1)

Maximum Temperatures				
Storage Temperature		-85°C to +200°C		
Operating Junction Temperature		175°C		
Maximum Power Dissipation (Notes 2 & 3)				
Total Dissipation at 25°C Ambient Temperature		400 mW		
Linear Derating Factor		2.67 mW/°C		
Maximum Voltage and Currents		1N659	1N660	1N661
WIV Working Inverse Voltage		50 V	100 V	200 V
I_O Average Rectified Current		175 mA	175 mA	175 mA
I_F Forward Current Steady State		400 mA	400 mA	400 mA
I_F (surge) Peak Forward Surge Current				
	Pulse Width = 1.0s	500 mA	500 mA	500 mA
	Pulse Width = 1.0 μ s	4.0A	4.0A	4.0A

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	1N659		1N660		1N661		UNITS	TEST CONDITIONS
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		
V_F	Forward Voltage		1.0		1.0		1.0	V	$I_F = 6.0 \text{ mA}$
I_R	Reverse Current		5.0		5.0		10	μ A	$V_R = 50 \text{ V}$
								μ A	$V_R = 100 \text{ V}$
								μ A	$V_R = 200 \text{ V}$
			25		50			μ A	$V_R = 50 \text{ V}, T_A = 100^\circ\text{C}$
								μ A	$V_R = 100 \text{ V}, T_A = 100^\circ\text{C}$
BV	Breakdown Voltage	60		120		240		μ A	$V_R = 200 \text{ V}, T_A = 100^\circ\text{C}$
t_{rr}	Reverse Recovery Time		300		300		300	ns	$V_r = 35 \text{ V}, I_f = 30 \text{ mA}, R_L = 2.0 \text{ k}\Omega,$ $C_L = 10 \text{ pF}, \text{Recovery to } 400 \text{ k}\Omega$



MILLIMETER DIMENSIONS ARE DERIVED FROM ORIGINAL INCH DIMEN

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
ØB	.018	.022	0.458	0.558	-
ØD	.085	.107	2.16	2.71	1
G	.230	.300	5.85	7.62	1
L	1.000	-	25.40	-	-
L1	-	.050	-	1.27	2

NOTES:

1. PACKAGE CONTOUR OPTIONAL WITHIN CYLINDER OF DIAMETER ØD AND LENGTH G. SLUGS, IF ANY, SHALL BE INCLUDED WITHIN THIS CYLINDER BUT SHALL NOT BE SUBJECT TO THE MINIMUM LIMIT OF ØD.
2. LEAD DIAMETER NOT CONTROLLED IN THIS ZONE TO ALLOW FOR FLASH, LEAD FINISH BUILD-UP, AND MINOR IRREGULARITIES OTHER THAN SLUGS.

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