DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

1N4148

SILICON SWITCHING DIODE

FEATURES

- Available as “HR” (high reliability) screened per MIL-PRF-19500, JANTX level. Add “HR” suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding “-PBF” suffix.
- Metallurgically bonded, hermetically sealed, double plug construction

MAXIMUM RATINGS

Operating temperature	-65° to 200°C
Storage temperature	-65° to 200°C
Surge current A, sine 8.3mS	2.0A
Surge current B, square 8.3mS	1.41A
Total power dissipation	500mW
Operating current	200mA, T_A = 25°C
Derating factor	1.14mA/°C above T_A = 25°C
D.C. reverse voltage (V_{RWM})	75V

DC ELECTRICAL CHARACTERISTICS

Characteristics	T_A =	Symbol	Minimum	Maximum	Unit
Forward voltage @ I_F = 10mA	25°C	V_F	-	0.8	Volts
Forward voltage @ I_F = 100mA	25°C		-	1.2	Volts
Forward voltage @ I_F = 10mA	150°C		-	0.8	Volts
Forward voltage @ I_F = 100mA	-55°C		-	1.3	Volts
Reverse leakage current @ 20Vdc	25°C	I_R	-	0.025	µA
Reverse leakage current @ 75Vdc	25°C		-	0.500	µA
Reverse leakage current @ 20Vdc	150°C		-	35.0	µA
Reverse leakage current @ 75Vdc	150°C		-	75.0	µA
Breakdown voltage @ I_R = 100µA	25°C	V_{BR}	100	-	Volts

AC ELECTRICAL CHARACTERISTICS

	Symbol	Maximum
Capacitance @ 0V	pF	4
Capacitance @ 1.5V	pF	2.8
T_{rr} @ I_F = I_R = 10mA, I_{REC} = 1mA	nsec	5
T_{FR} = I_F = 50mA	nsec	20
V_{FR} @ I_F = 50mA	$V_{(pk)}$	5

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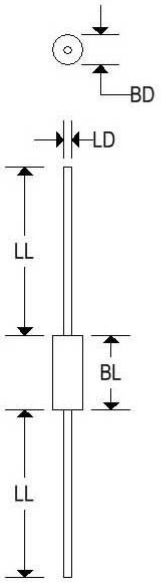
MECHANICAL CHARACTERISTICS

Case:	DO-35 Glass
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