DIOTEC ELECTRONICS CORP.
18020 Hobart Blvd., Unit B
Gardena, CA 90248 U.S.A
Tel.: (310) 767-1052 Fax: (310) 767-7958

Data Sheet No. GPDP-101-1B

1 AMP GENERAL PURPOSE SILICON DIODES

FEATURES

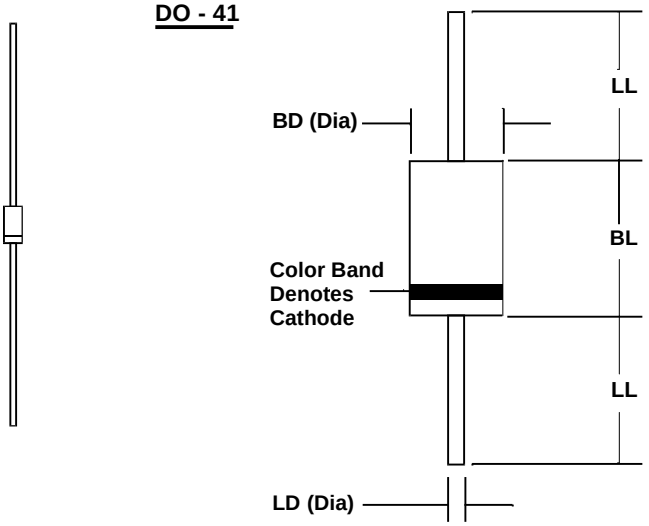
- **Low cost**
- **Low leakage**
- **Low forward voltage drop**
- **High current capacity**
- **Easily cleaned with freon, alcohol, chlorothene and similar solvents**

MECHANICAL SPECIFICATION

ACTUAL SIZE OF DO-41 PACKAGE

SERIES 1N4001 - 1N4007

DO - 41



Sym	Minimum		Maximum	
	In	mm	In	mm
BL	0.160	4.1	0.205	5.2
BD	0.103	2.6	0.107	2.7
LL	1.00	25.4		
LD	0.028	0.71	0.034	0.86

MECHANICAL DATA

- **Case: JEDEC DO-41, molded plastic (U/L Flammability Rating 94V-0)**
- **Terminals: Plated axial leads**
- **Soldering: Per MIL-STD 202 Method 208 guaranteed**
- **Polarity: Color band denotes cathode**
- **Mounting Position: Any**
- **Weight: 0.012 Ounces (0.34 Grams)**

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS							UNITS
Series Number		1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	
Maximum DC Blocking Voltage	V_{RM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum Peak Recurrent Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	
Average Forward Rectified Current @ T_A = 75 °C (Lead length = 0.375 in. (9.5 mm))	I_O	1							AMPS
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I_{FSM}	50							
Maximum Forward Voltage at 1 Amp DC	V_{FM}	1							VOLTS
Maximum Full Cycle Reverse Current @ T_L = 75 °C (Note 1)	$I_{RM(AV)}$	30							µA
Maximum Average DC Reverse Current @ T_A = 25°C At Rated DC Blocking Voltage @ T_A = 100°C	I_{RM}	5 50							
Typical Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	30							°C/W
Typical Junction Capacitance (Note 2)	C_J	26							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175							°C

4.97fgpdp101

NOTES: (1) Lead length = 0.375 in. (9.5 mm)
(2) Measured at 1MHz & applied reverse voltage of 4 volts

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RATING & CHARACTERISTIC CURVES FOR SERIES 1N4001 - 1N4007

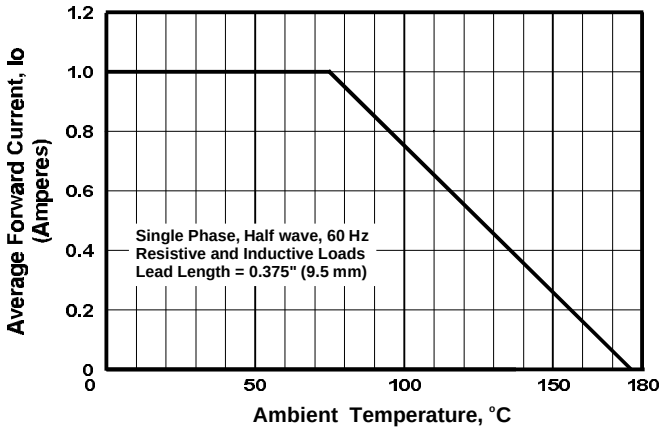

FIGURE 1. FORWARD CURRENT DERATING CURVE

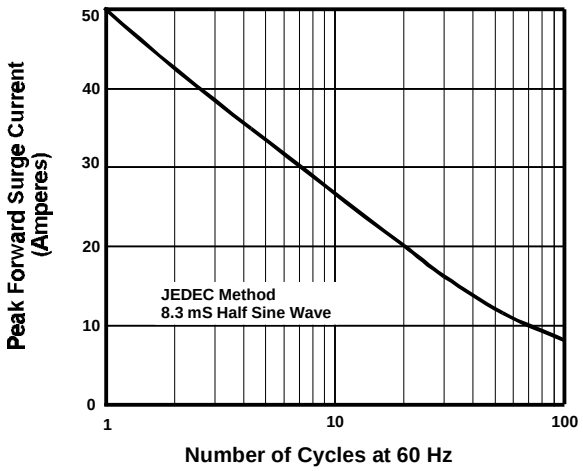

FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

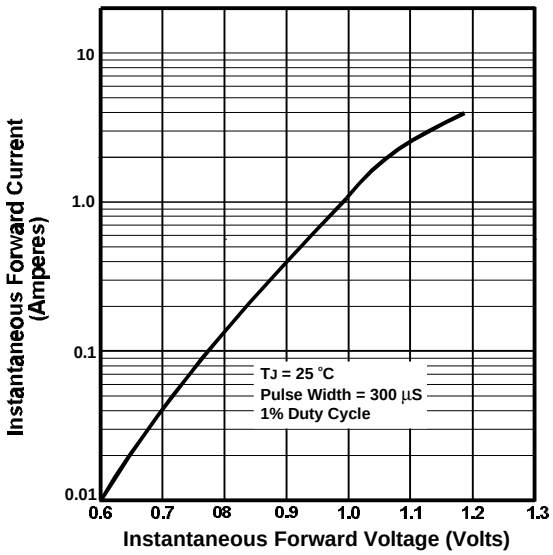

FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

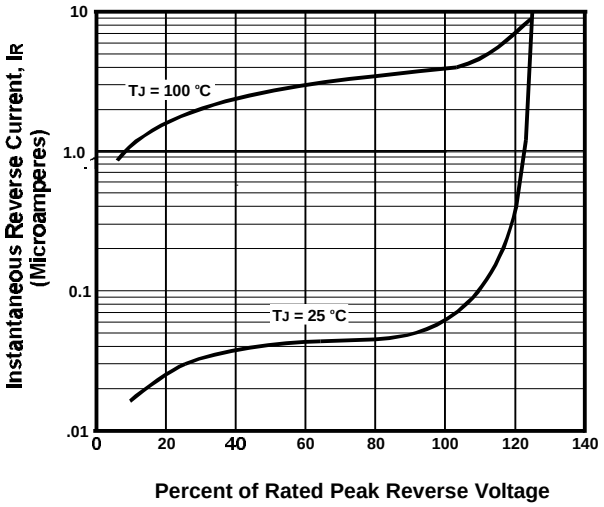

FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

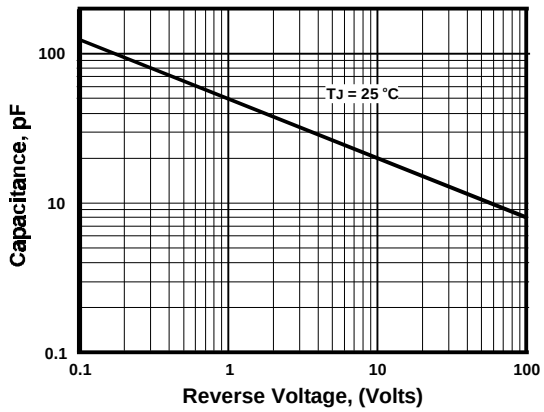

FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

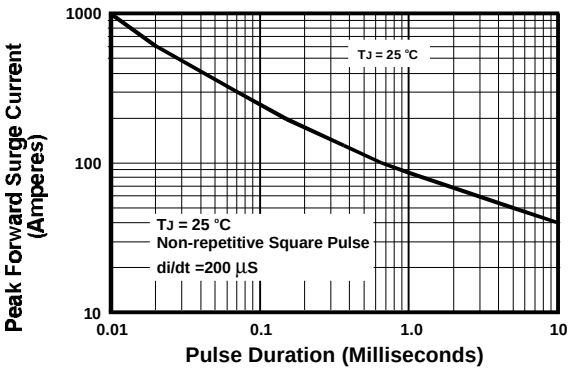

FIGURE 6. PEAK FORWARD SURGE CURRENT

4.97bgpdp101