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. GPPD-400-1B

4 AMP HIGH RELIABILITY SOFT GLASS PASSIVATED SILICON DIODES

FEATURES

- **PROPRIETARY *SOFT GLASS*® JUNCTION PASSIVATION FOR SUPERIOR RELIABILITY AND PERFORMANCE**
- **VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical ≤ 2%, Max. ≤ 10% of Die Area)**
- **EXTREMELY LOW LEAKAGE AT HIGH TEMPERATURES**
- **LOW FORWARD VOLTAGE DROP**
- **4A at T_A = 75 °C WITH NO THERMAL RUNAWAY**

MECHANICAL DATA

- **Case: JEDEC DO-27 molded epoxy (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: 0.02 Ounces (0.7 Grams)**

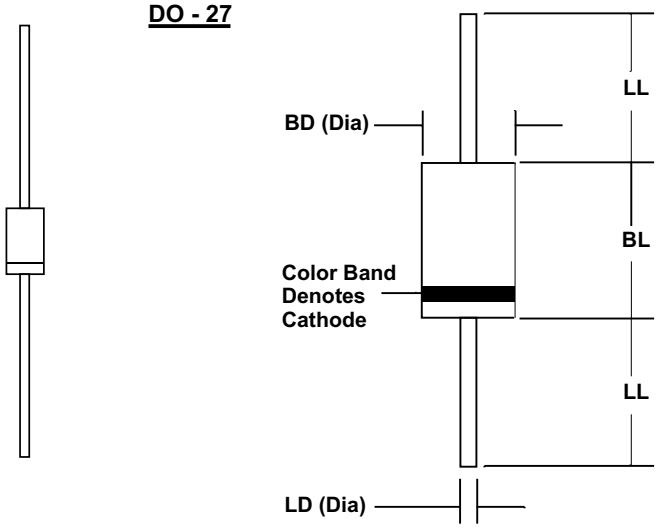
RoHS COMPLIANT

MECHANICAL SPECIFICATION

ACTUAL SIZE OF DO-27 PACKAGE

SERIES GP400 - GP410

DO - 27



Sym	Minimum		Maximum	
	In	mm	In	mm
BL			0.365	9.28
BD			0.205	5.2
LL	1.00	25.4		
LD	0.048	1.2	0.052	1.3

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		GP400	GP401	GP402	GP404	GP406	GP408	GP410	
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	4							AMPS
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I_{FSM}	200							
Maximum Forward Voltage at 4 Amps DC	V_{FM}	1							VOLTS
Maximum Full Cycle Reverse Current @ T_L = 75 °C (Note 1)	$I_{RM(AV)}$	20							µA
Maximum Average DC Reverse Current @ T_A = 25°C At Rated DC Blocking Voltage @ T_A = 100°C	I_{RM}	2 50							
Typical Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	18							°C/W
Typical Junction Capacitance (Note 2)	C_J	70							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175							°C

4.97(gppd400

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 GP400 - GP410

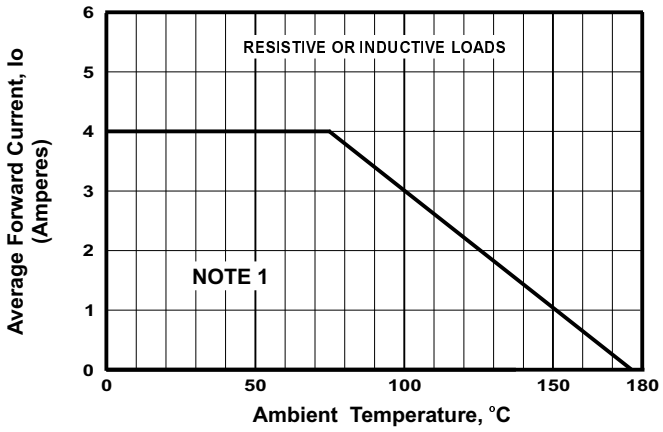

FIGURE 1. FORWARD CURRENT DERATING CURVE

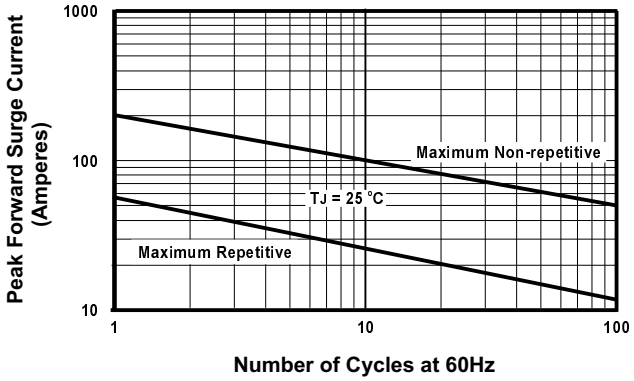

FIGURE 2. FORWARD SURGE CURRENT

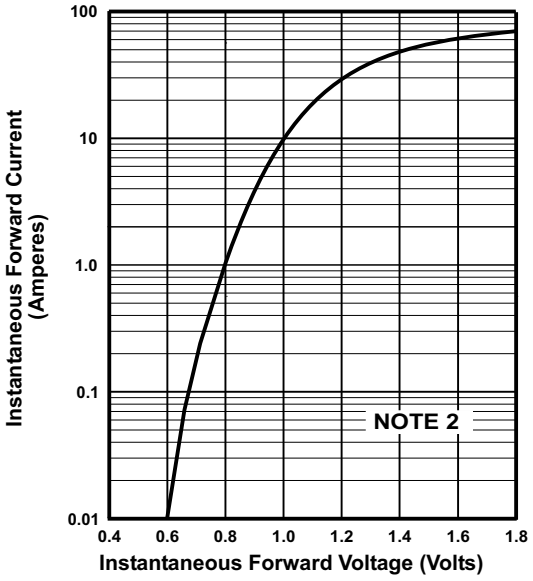

FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

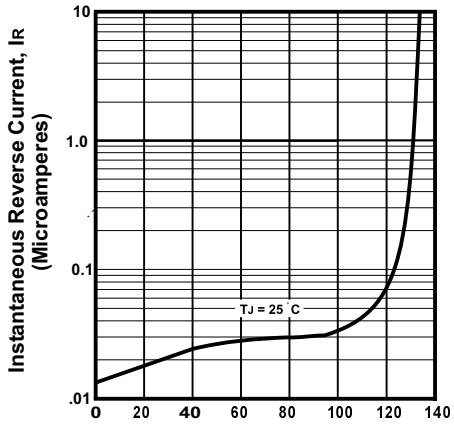

FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

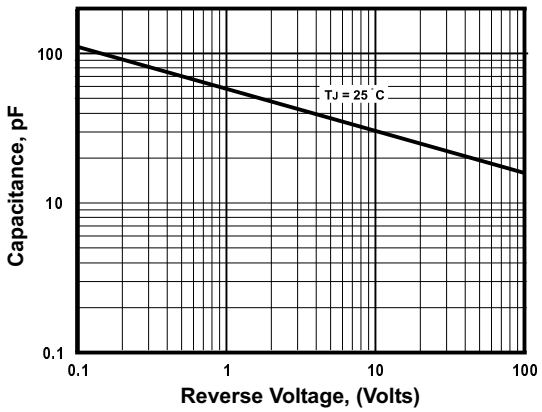

FIGURE 5. TYPICAL JUNCTION CAPACITANCE

NOTES

(1) Single Phase, Half Wave, 60 Hz; Lead Length = 0.375" (9.5mm)

(2) T_J = 25 °C, Pulse Width = 300 μSec, 1.0% Duty Cycle

4.97 bg pdp400