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. HVGP-1000-1C

HIGH VOLTAGE DIODE RECTIFIERS

FEATURES

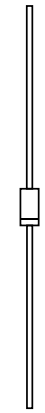
- PROPRIETARY *SOFT GLASS*® JUNCTION PASSIVATION FOR SUPERIOR RELIABILITY AND PERFORMANCE
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical ≤ 2%, Max. ≤ 10% of Die Area)
- EXTREMELY LOW LEAKAGE AT HIGH TEMPERATURES
- LOW FORWARD VOLTAGE DROP
- HIGH CURRENT CAPABILITY

MECHANICAL DATA

- Case: JEDEC DO-41 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: DO-41 - 0.012 Ounces (0.34 Grams)

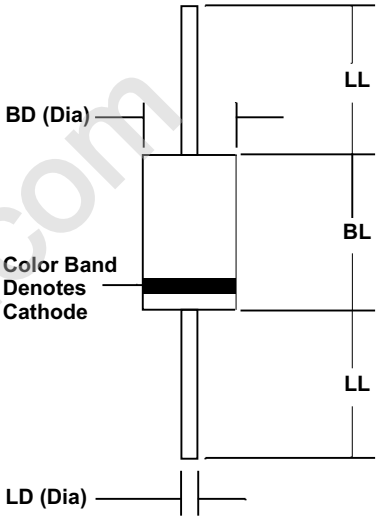
MECHANICAL SPECIFICATION

ACTUAL SIZE OF DO-41 PACKAGE



DO-41

SERIES GP1120 - GP1500



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

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		GP 1150	GP 1180	GP 1200	GP 1250	GP 1300	GP 1400	GP 1500	GP 1600	
Maximum DC Blocking Voltage	V_{RM}	1500	1800	2000	2500	3000	4000	5000	6000	VOLTS
Maximum RMS Voltage	V_{RMS}	1050	1260	1400	1750	2100	2800	3500	4200	
Maximum Peak Recurrent Reverse Voltage	V_{RRM}	1500	1800	2000	2500	3000	4000	5000	6000	
Average Forward Rectified Current @ T_A = 50 °C, Lead length = 0.375 in. (9.5 mm)	I_O	1000			500			200		mA
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I_{FSM}	35			25			15		AMPS
Maximum Forward Voltage at Rated Forward Current	V_{FM}	1.5			3.0			4.5	6.0	VOLTS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage @ T_A = 25°C	I_{RM}	1.0								µA
Typical Junction Capacitance (Note 1)	C_J	12								pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150								°C

2.01g p1120

NOTES: (1) Measured at 1MHz & applied reverse voltage of 4 volts

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HIGH VOLTAGE DIODE RECTIFIERS

RATING & CHARACTERISTIC CURVES FOR SERIES GP1150 - GP1600

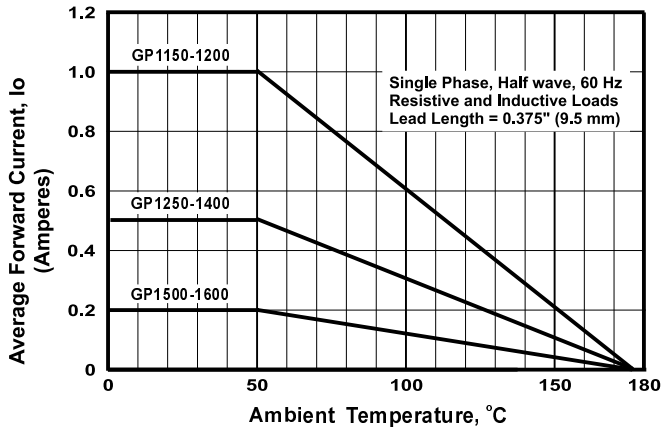

FIGURE 1. FORWARD CURRENT DERATING CURVE

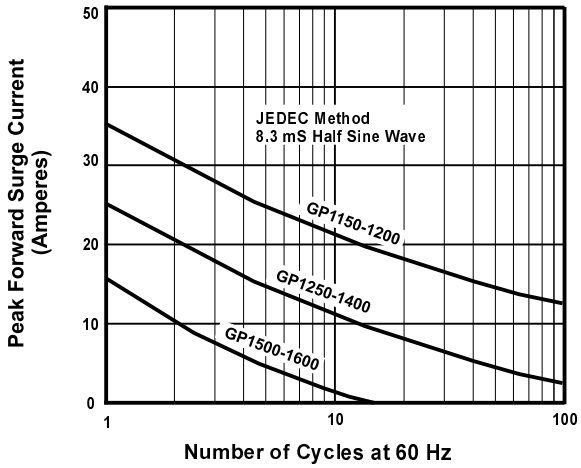

FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

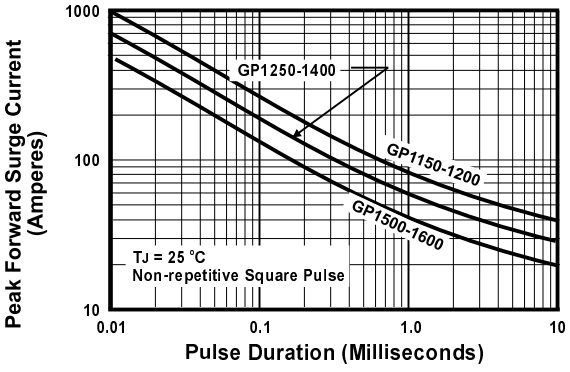

FIGURE 6. PEAK FORWARD SURGE CURRENT

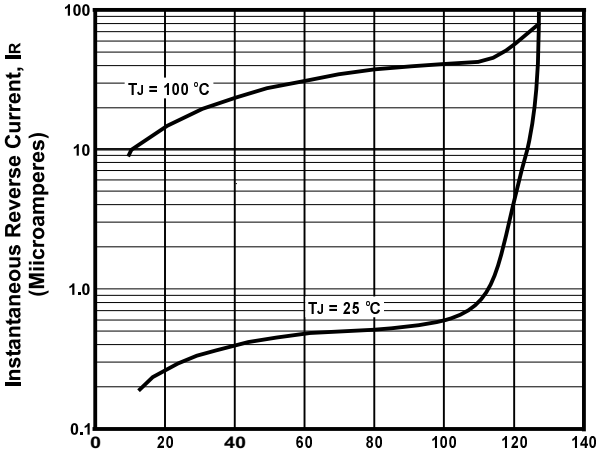

FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

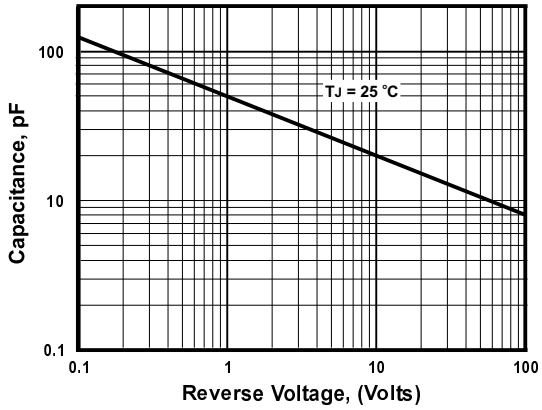

FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

4-97 bh vgp 100