

# DIOTEC ELECTRONICS CORP. 18020 Hobart Blvd., Unit B Gardena, CA 90248 U.S.A

Tel.: (310) 767-1052 Fax: (310) 767-7958

# 3 AMP SOFT GLASS PASSIVATED SILICON DIODES

#### **FEATURES**

• Proprietary "Soft Glass® " P/N junction passivation

Void-free chip soldering

• Extremely low leakage at high temperatures

Ideal for continuous high temperature applications

· High surge current capability

Low forward voltage drop

• 3A at TA = 75 °C with no thermal runaway

#### **MECHANICAL DATA**

Case: JEDEC DO-27 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

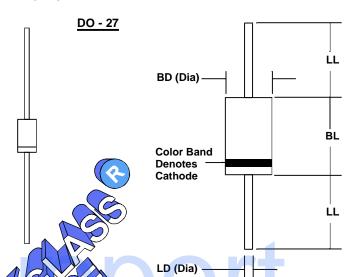
Mounting Position: Any

• Weight: 0.02 Ounces (0.7 Grams)

#### **MECHANICAL SPECIFICATION**

**ACTUAL SIZE OF DO-27 PACKAGE** 

**SERIES 1N5400G - IN5408G** 



Sym	Minimum		Maximum				
	ln	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)		RATINGS							UNITS
Series Number		1N 5400G	1N 5401G	1N 5402G	1N 5404G	1N 5406G	1N 5407G	1N 5408G	
Maximum DC Blocking Voltage		50	100	200	400	600	800	1000	
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	VOLTS
Maximum Peak Recurrent Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	
Average Forward Rectified Current @ TA = 75 °C (Lead length = 0.375 in. (9.5 mm))	lo	3						AMPS	
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	IFSM	200							
Maximum Forward Voltage at 3 Amps DC	VFM	1						VOLTS	
Maximum Full Cycle Reverse Current @ TL = 75 °C (Note 1)	IRM(AV)	20							μ <b>Α</b>
Maximum Average DC Reverse Current @ TA = 25°C At Rated DC Blocking Voltage @ TA = 100°C	IRM	2 50							
Typical Thermal Resistance, Junction to Ambient (Note 1)	RθJA	18							°C/W
Typical Junction Capacitance (Note 2)	C1	70							pF
Operating and Storage Temperature Range	TJ, Tsтg	-65 to +175							°C

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 1N5400G - 1N5408G**

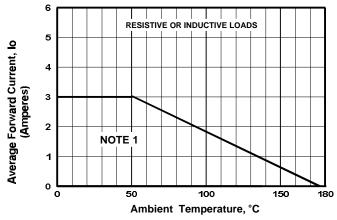


FIGURE 1. FORWARD CURRENT DERATING CURVE

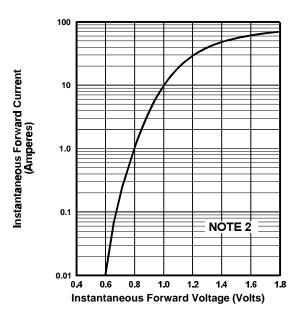


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

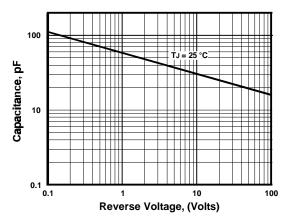


FIGURE 5. TYPICAL JUNCTION CAPACITANCE

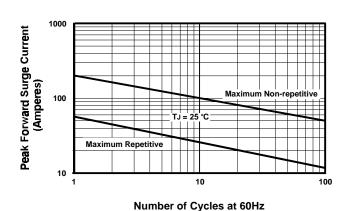
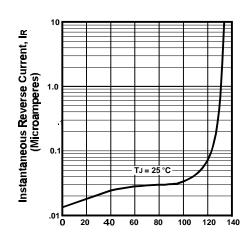


FIGURE 2. FORWARD SURGE CURRENT



Percent of Rated Peak Reverse Voltage
FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

#### **NOTES**

- (1) Single Phase, Half Wave, 60 Hz; Lead Length = 0.375" (9.5mm)
- (2) TJ = 25 °C, Pulse Width = 300  $\mu$ Sec, 1.0% Duty Cycle