

## 3 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

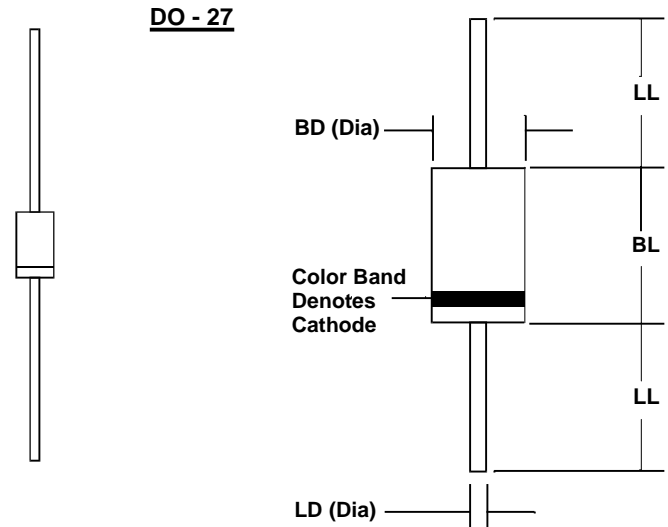
### MECHANICAL DATA

- 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 1N5400 - 1N5408



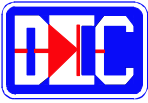
Sym	Minimum		Maximum	
	In	mm	In	mm
BL			0.365	9.28
BD			0.205	5.2
LL	1.00	25.4		
LD	0.048	1.2	0.052	1.3

### 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%.

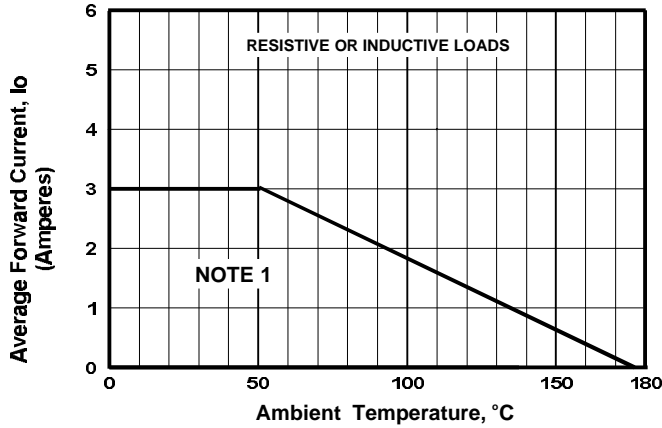
PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS								UNITS
		1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408		
Series Number										
Maximum DC Blocking Voltage	V <sub>RM</sub>	50	100	200	400	600	800	1000		VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700		
Maximum Peak Recurrent Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000		
Average Forward Rectified Current @ T <sub>A</sub> = 75 °C Lead length = 0.375 in. (9.5 mm)	I <sub>O</sub>	3								AMPS
Peak Forward Surge Current ( 8.3 mSec single half sine wave superimposed on rated load)	I <sub>FSM</sub>	200								
Maximum Forward Voltage at 3 Amps DC	V <sub>FM</sub>	1								VOLTS
Maximum Full Cycle Reverse Current @ T <sub>L</sub> = 75 °C (Note 1)	I <sub>RM(AV)</sub>	30								μA
Maximum Average DC Reverse Current @ T <sub>A</sub> = 25 °C At Rated DC Blocking Voltage @ T <sub>A</sub> = 100 °C	I <sub>RM</sub>	5								
Typical Thermal Resistance, Junction to Ambient (Note 1)	R <sub>θJA</sub>	18								°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	70								pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175								°C

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

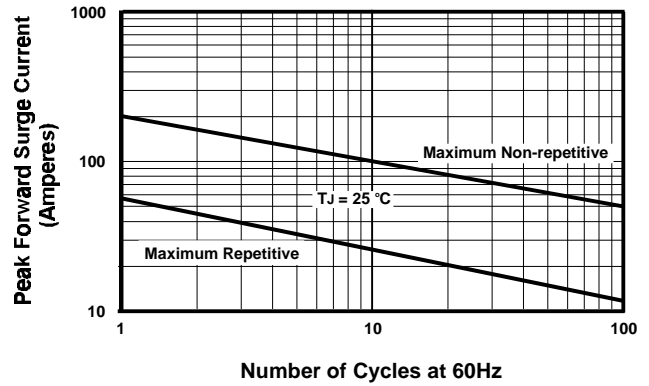


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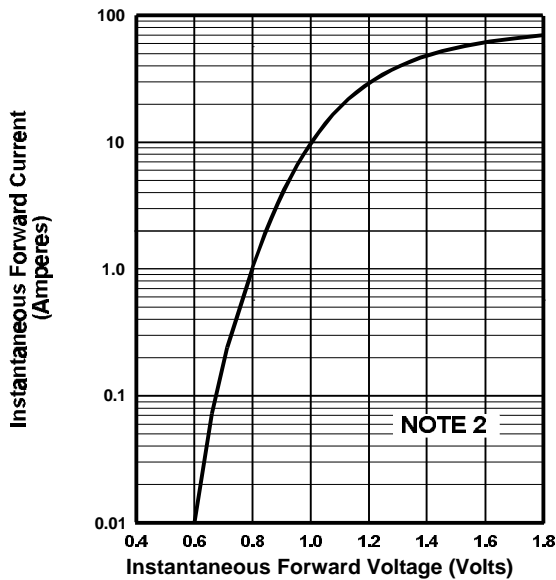
### RATING & CHARACTERISTIC CURVES FOR SERIES 1N5400 - 1N5408



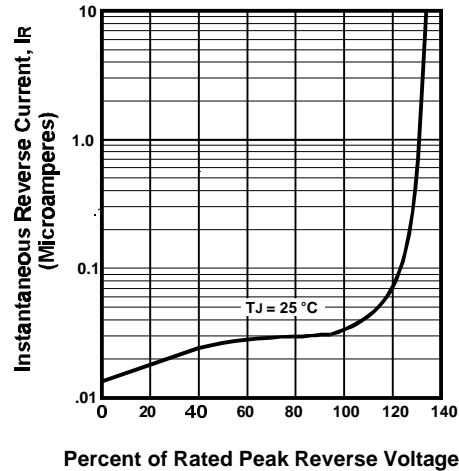
**FIGURE 1. FORWARD CURRENT DERATING CURVE**



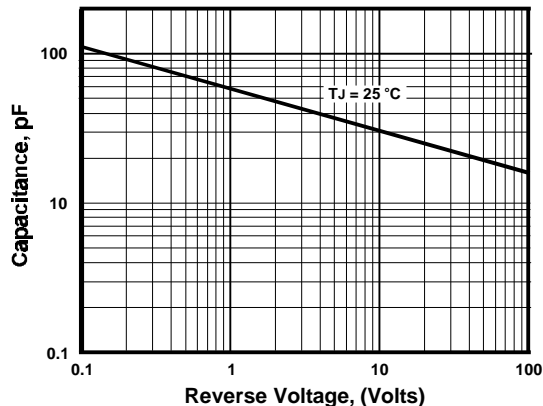
**FIGURE 2. FORWARD SURGE CURRENT**



**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)  $T_J = 25^\circ\text{C}$ , Pulse Width = 300  $\mu\text{Sec}$ , 1.0% Duty Cycle