

## 3 AMP FAST RECOVERY SILICON DIODES

### FEATURES

- Low cost
- Low leakage
- Low forward voltage drop
- High current capacity
- Fast switching for high efficiency

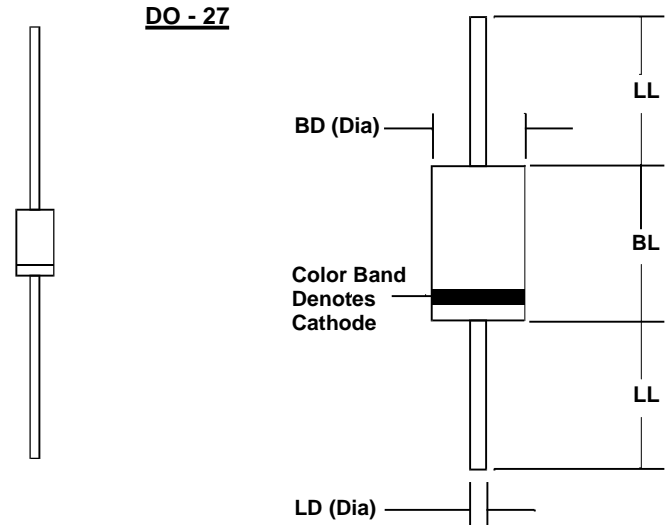
### MECHANICAL DATA

- 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 RP300 - RP310



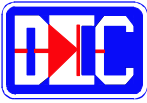
Sym	Minimum		Maximum	
	In	mm	In	mm
BL			0.365	9.28
BD			0.205	5.2
LL	1.00	25.4		
LD	0.048	1.2	0.052	1.3

### 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
		RP300	RP301	RP302	RP304	RP306	RP308	RP310		
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> = 55 °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>	1.3								VOLTS
Maximum Reverse Recovery Time (I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>RR</sub> =0.25A)	T <sub>RR</sub>	150				250	500 (Note 2)			nS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage	I <sub>RM</sub>	10 150								μA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	60								pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175								°C

NOTES: (1) Maximum allowable reverse voltage of 4 volts  
 (2) Maximum allowable reverse voltage of 4 volts



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#### RATING & CHARACTERISTIC CURVES FOR SERIES RP300 - RP310

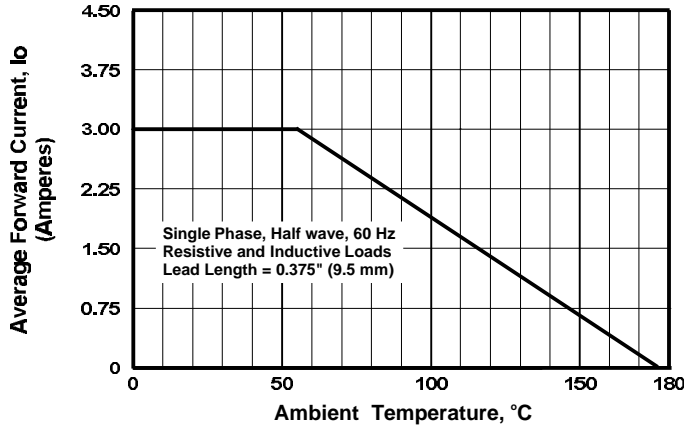


FIGURE 1. FORWARD CURRENT DERATING CURVE

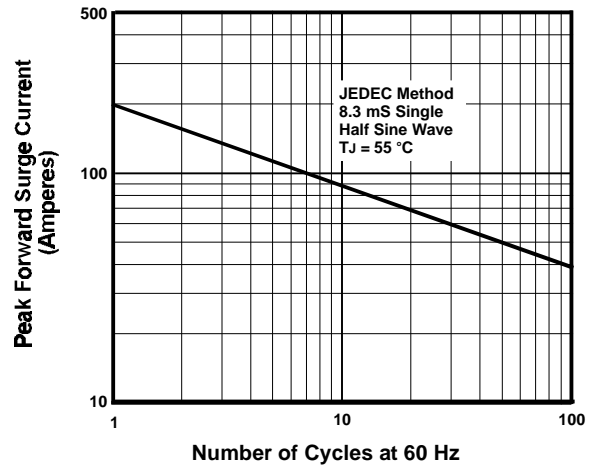


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

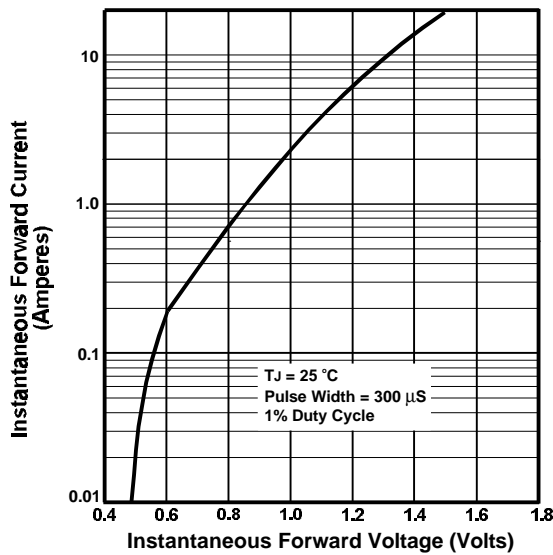


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC

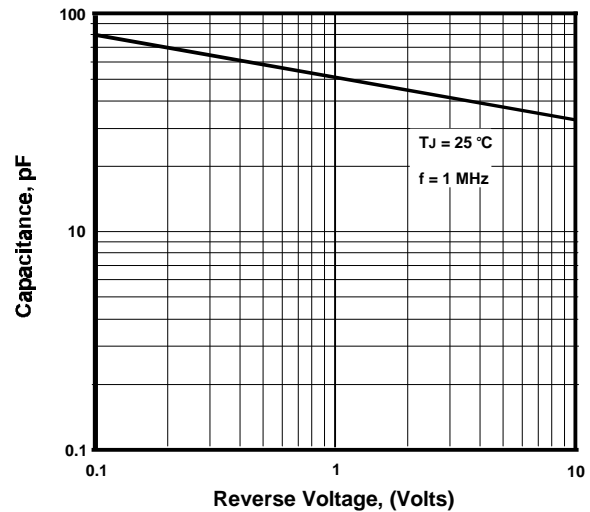


FIGURE 4. TYPICAL JUNCTION CAPACITANCE

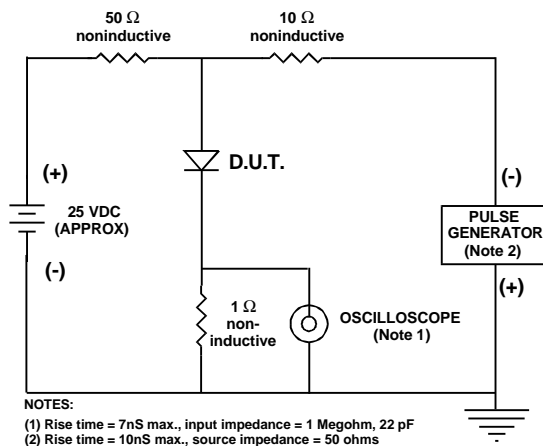


FIGURE 5. REVERSE RECOVERY TEST SETUP AND TIME CHARACTERISTIC