

6 AMP FAST RECOVERY SILICON DIODES

FEATURES

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

MECHANICAL DATA

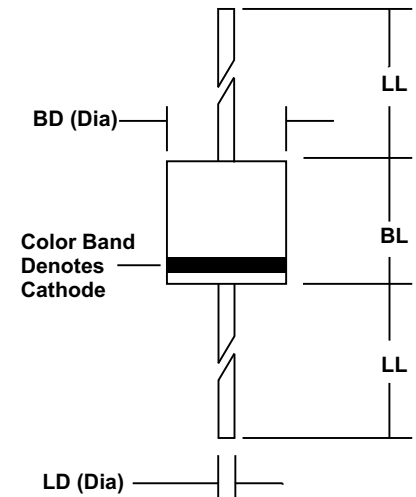
- Case: Molded epoxy (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.07 Ounces (2.1 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF RP600 PACKAGE



SERIES RP600 - RP610



Sym	Minimum		Maximum	
	In	mm	In	mm
BL	0.340	8.6	0.360	9.1
BD	0.340	8.6	0.360	9.1
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	
		RP600	RP601	RP602	RP604	RP606	RP608	RP610			
Series Number											
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 = 60 °C, Lead length = 0.375 in. (9.5 mm)	I _O	6									AMPS
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I _{FSM}	300									
Maximum Forward Voltage at 6 Amps DC	V _{FM}	1.3									VOLTS
Maximum Reverse Recovery Time (I _F =0.5A, I _R =1A, I _{RR} =0.25A)	T _{RR}	150				250	500 (Note 3)				nS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage	I _{RM}	10 200									μA
Typical Junction Capacitance (Note 2)	C _J	100									pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175									°C

NOTES: (1) Lead length = 0.375 in. (9.5 mm)
 (2) Measured at 1MHz & applied reverse voltage of 4 volts
 (3) 300 nS available - consult with factory

01.00/fsdp601



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RATING & CHARACTERISTIC CURVES FOR SERIES RP600 - RP610

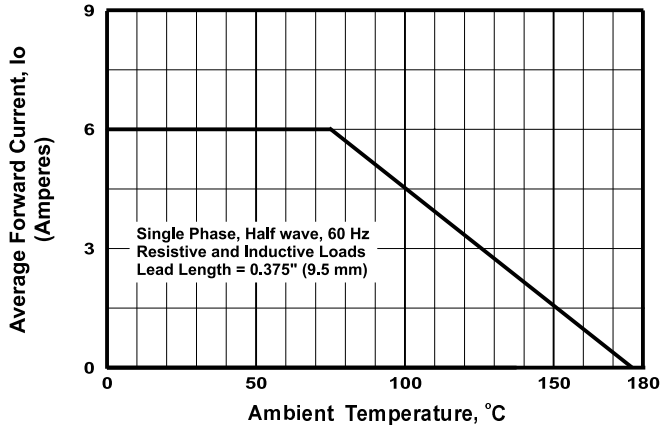


FIGURE 1. FORWARD CURRENT DERATING CURVE

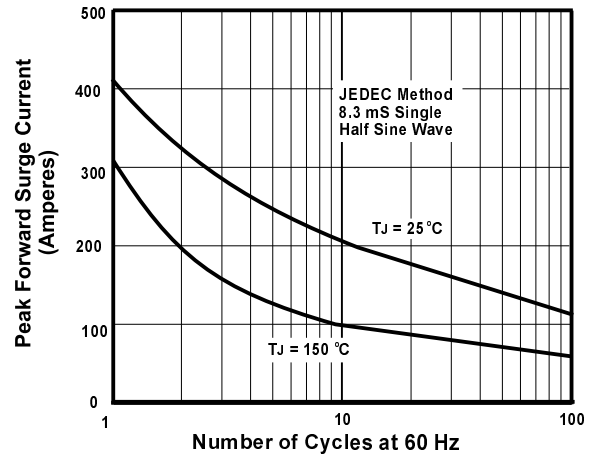


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

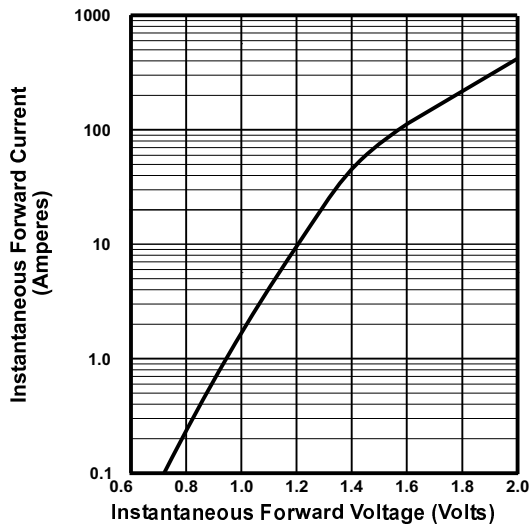


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

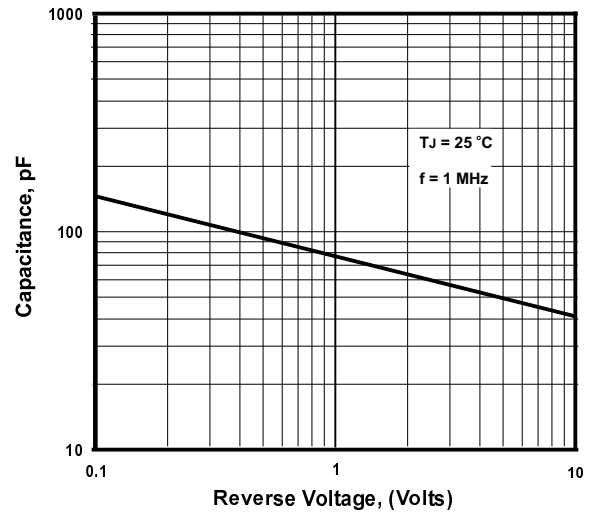


FIGURE 4. TYPICAL JUNCTION CAPACITANCE

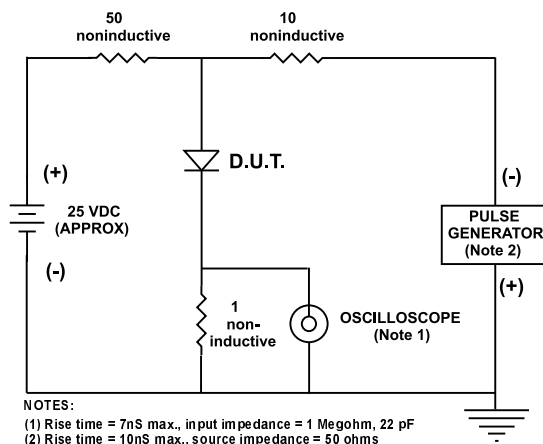


FIGURE 5. REVERSE RECOVERY TEST SETUP AND TIME CHARACTERISTIC