

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

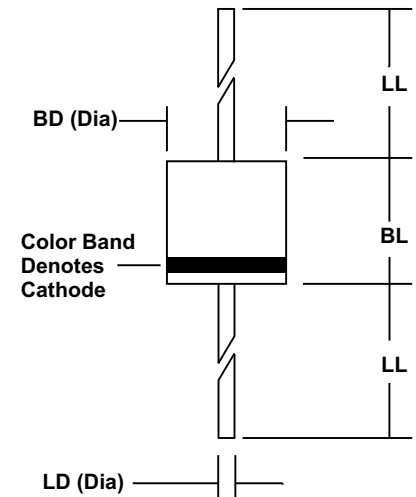
- Case: Molded epoxy (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.07 Ounces (2.1 Grams)

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

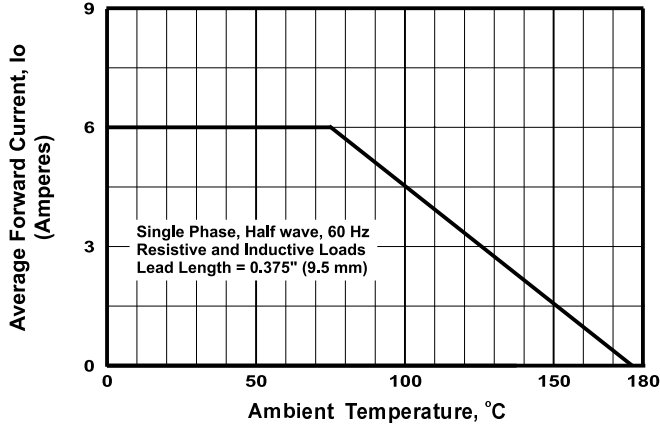


FIGURE 1. FORWARD CURRENT DERATING CURVE

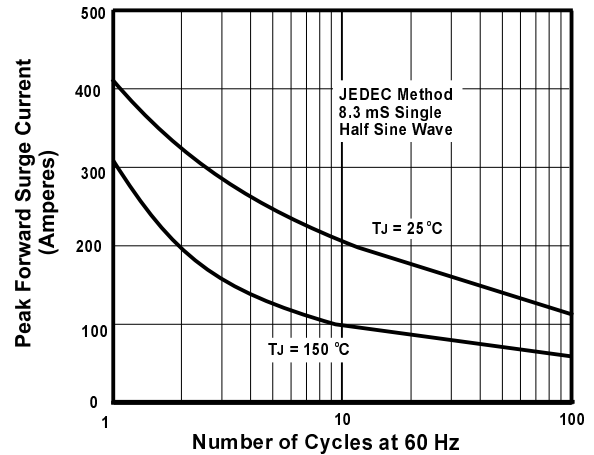


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

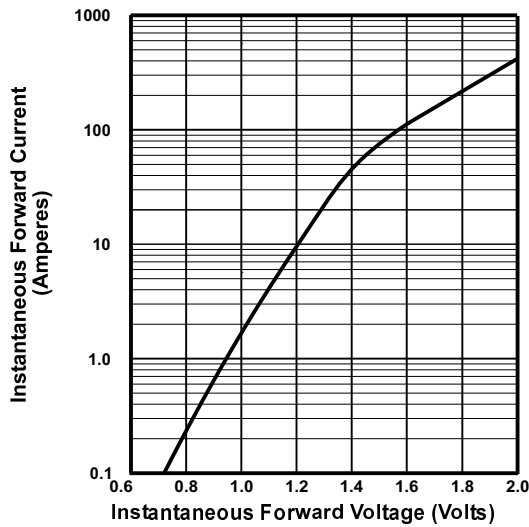


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

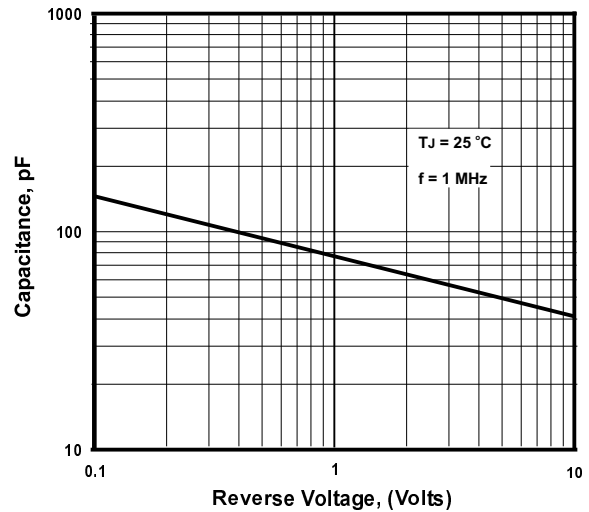


FIGURE 4. TYPICAL JUNCTION CAPACITANCE

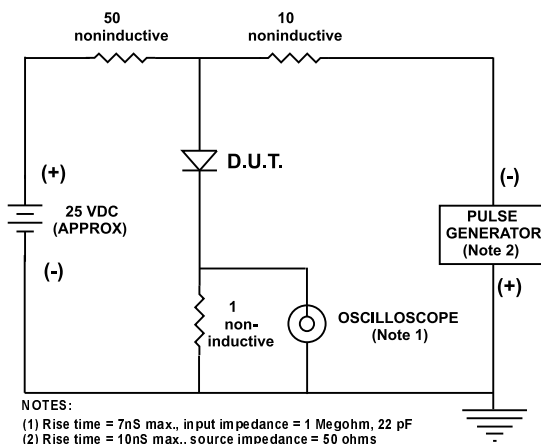


FIGURE 5. REVERSE RECOVERY TEST SETUP AND TIME CHARACTERISTIC