

## 35 AMP SOFT RECOVERY FAST SWITCHING BUTTON DIODES

### FEATURES

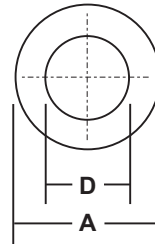
- TRUE SOFT RECOVERY CHARACTERISTIC WITH NO RINGING, SPIKES, or OVERSHOOT
- HIGH FREQUENCY: 250 kHz  
FAST RECOVERY: 100nS - 150nS
- UNMATCHED PERFORMANCE - Minimal RFI/EMI, Reduced Power Losses, Extremely Cool Operation Increased Power Supply Efficiency
- VOID FREE Vacuum Die Soldering For Maximum Mechanical Strength And Heat Dissipation (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- Glass Passivated Die For Superior Reliability and Performance
- Wide Range of Applications - Motor Speed Controllers Inverters, Converters, Choppers, Power Supplies, etc.

### MECHANICAL DATA

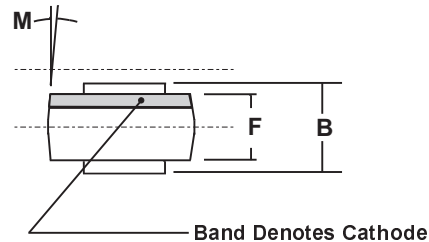
- Case: Molded Epoxy, U/L Flammability Rating 94V-0
- Finish: All external surfaces are corrosion resistant and the contact areas are readily solderable
- Soldering Temperature: 250 °C maximum
- Mounting Position: Any
- Polarity: Color band denotes cathode
- Weight: 0.06 Ounces (1.8 Grams)

### MECHANICAL SPECIFICATION

DIE SIZE: 0.180" x 0.180"  
SQUARE GPP DIE



| DIM | MILLIMETERS |      | INCHES |       |
|-----|-------------|------|--------|-------|
|     | MIN         | MAX  | MIN    | MAX   |
| A   | 8.43        | 8.69 | 0.332  | 0.342 |
| B   | 5.94        | 6.25 | 0.234  | 0.246 |
| D   | 5.46        | 5.71 | 0.215  | 0.225 |
| F   | 4.19        | 4.45 | 0.165  | 0.175 |
| M   | 5° NOM      |      | 5° NOM |       |



**RoHS COMPLIANT**

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

| PARAMETER (TEST CONDITIONS)   | SYMBOL                            | RATINGS             |           |           |           |           | UNITS |
|---|-----------------------------------|---------------------|-----------|-----------|-----------|-----------|-------|
|   |                                   | SRP 3500S           | SRP 3501S | SRP 3502S | SRP 3504S | SRP 3506S |       |
| Series Number   |                                   |                     |           |           |           |           |       |
| Maximum DC Blocking Voltage   | V <sub>RM</sub>                   | 50                  | 100       | 200       | 400       | 600       | VOLTS |
| Maximum RMS Voltage   | V <sub>RMS</sub>                  | 35                  | 70        | 140       | 280       | 420       |       |
| Maximum Peak Recurrent Reverse Voltage  | V <sub>RRM</sub>                  | 50                  | 100       | 200       | 400       | 600       |       |
| Average Forward Rectified Current   | I <sub>O</sub>                    | 35                  |           |           |           |           | AMPS  |
| Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)   | I <sub>FSM</sub>                  | 500                 |           |           |           |           |       |
| Maximum Forward Voltage at 35 Amps DC   | V <sub>FM</sub>                   | 1.35 (Typical 1.25) |           |           |           |           | VOLTS |
| Maximum Average DC Reverse Current<br>@ T <sub>c</sub> = 25 °C<br>At Rated DC Blocking Voltage<br>@ T <sub>c</sub> = 125 °C | I <sub>RM</sub>                   | 1.0<br>50           |           |           |           |           | μA    |
| Typical Thermal Resistance, Junction to Case  | R <sub>θJC</sub>                  | 0.8                 |           |           |           |           | °C/W  |
| Maximum Reverse Recovery Time - Soft Recovery   | T <sub>RR</sub>                   | 150 (Typ. 100)      |           |           |           |           | nSec  |
| Junction Operating and Storage Temperature Range  | T <sub>J</sub> , T <sub>STG</sub> | -65 to +175         |           |           |           |           | °C    |