

## 50 AMP HIGH FREQUENCY SOFT RECOVERY BUTTON DIODES

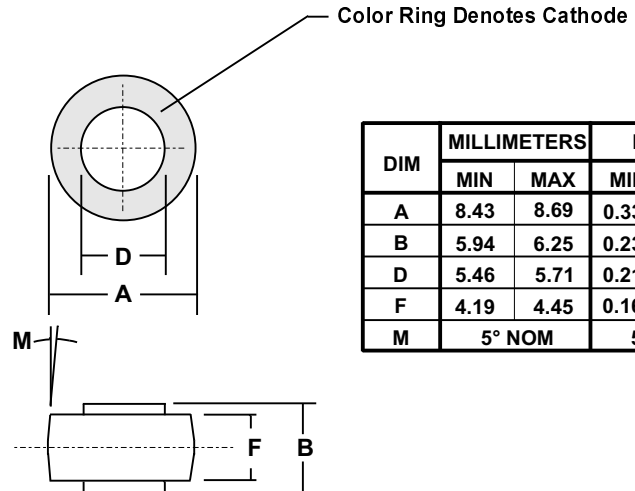
### FEATURES

- 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)
- Proprietary *SOFT GLASS* Junction Passivation For Superior Reliability and Performance
- Wide Range of Applications - 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: 0.6 Ounces (1.8 Grams)

### MECHANICAL SPECIFICATION



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	

**DIE SIZE: 0.180" x 0.180" SQUARE**

**RoHS COMPLIANT**

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS					UNITS
		SRP 5000S	SRP 5001S	SRP 5002S	SRP 5004S	SRP 5006S	
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>R<sub>RM</sub></sub>	50	100	200	400	600	
Average Forward Rectified Current	I <sub>o</sub>	50					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I <sub>FSM</sub>	720					
Maximum Forward Voltage at 35 Amps DC	V <sub>FM</sub>	1.2 (Typical 1.1)					VOLTS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage	I <sub>RM</sub>	1.0 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 +150					°C

07.03 SRP5004S