

## 75 AMP SOFT RECOVERY FAST SWITCHING LEAD MOUNT BUTTON DIODES

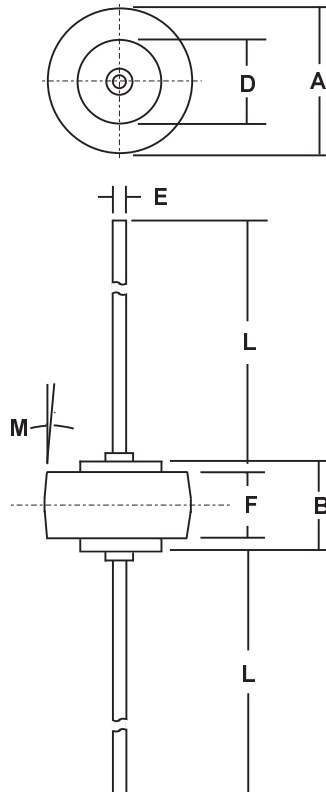
### FEATURES

- IDEALLY SUITED FOR ELECTRIC VEHICLE MOTOR CONTROL APPLICATIONS
- HIGH FREQUENCY: 250 kHz  
FAST RECOVERY: Typical 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 Junction Passivation For Superior Reliability and Performance
- Wide Range of Applications: Motor Speed Controllers, Inverters, Converters, Choppers, Power Supplies, etc.

### MECHANICAL DATA

- Case: Molded Epoxy (UL Flammability Rating 94V-O)
- Finish: All external surfaces are corrosion resistant and the contact areas are readily solderable
- Maximum Lead Soldering Temperature: 220 °C, 3/8" from case for 10 seconds at 5 lbs tension
- Mounting Position: Any
- Polarity: Color band or diode symbol on case
- Weight: 0.09 Ounces (2.6 Grams)

### MECHANICAL SPECIFICATION



**DIE SIZE: 0.250" ROUND**  
**Largest Die Available**  
**In The Industry**

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
E	1.27	1.35	0.050	0.053
F	4.19	4.45	0.165	0.175
L	25.15	25.65	0.990	1.010
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
		SRL 7500	SRL 7501	SRL 7502	SRL 7504	SRL 7506	
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>	75					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I <sub>FSM</sub>	800					
Maximum Forward Voltage at 75 Amps DC	V <sub>FM</sub>	1.40 (Typical 1.23)					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 (Note 1)	R <sub>θJC</sub>	0.8					°C/W
Maximum Reverse Recovery Time	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

Notes: 1) Both Leads to Heatsink, Equal Length