DIOTEC ELECTRONICS CORP
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35 AMP LEAD MOUNT FAST RECOVERY BUTTON DIODES

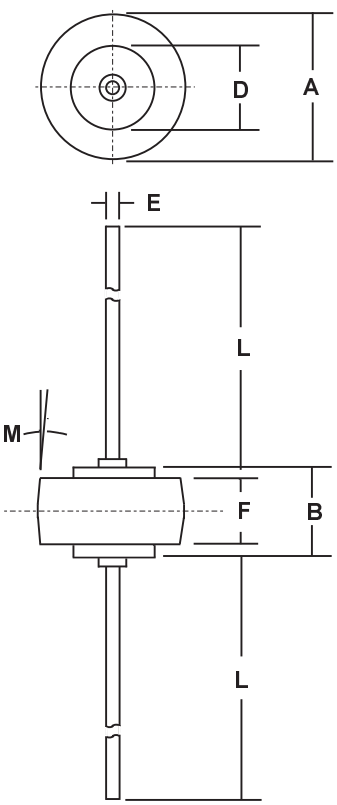
FEATURES

- VOID FREE Vacuum Die Soldering For Maximum Mechanical Strength And Heat Dissipation (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- HIGH FREQUENCY: 250 kHz FAST RECOVERY: Typical 100nS - 150nS
- UNMATCHED PERFORMANCE - Minimal RFI/EMI, Reduced Power Losses, Extremely Cool Operation Increased Power Supply Efficiency
- Proprietary Junction Passivation For Superior Reliability and Performance
- Wide Range of Applications - 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: 210 °C, 3/8" case for 10 seconds at 5 lbs tension
- Mounting Position: Any
- Polarity: Color band or diode symbol on case
- Weight: 0.09 Ounces (2.5 Grams)

MECHANICAL SPECIFICATION



Die Size: 0.180" x 0.180" Square

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
Series Number		MR 820	MR 821	MR 822	MR 824	MR 826	
Maximum DC Blocking Voltage	V_{RM}	50	100	200	400	600	VOLTS
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	
Maximum Peak Recurrent Reverse Voltage	V_{RRM}	50	100	200	400	600	
Average Forward Rectified Current	I_O	35					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I_{FSM}	600					
Maximum Forward Voltage at 35 Amps DC	V_{FM}	1.2 (Typical 1.1)					VOLTS
Maximum Average DC Reverse Current @ Tc = 25 °C At Rated DC Blocking Voltage @ Tc = 100 °C	I_{RM}	2.0 100					µA
Typical Thermal Resistance, Junction to Case (Note 1)	$R_{\theta JC}$	0.8					°C/W
Maximum Reverse Recovery Time (I_F = 1.0 Amp to V_R = 30 Vdc) (I_{FM} = 15 Amp, di/dt = 25 A/µs)	T_{RR}	200 (Typ. 150) 300 (Typ. 150)					nSec
Junction Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175					°C

Notes: 1) Both Leads to Heatsink, Equal Length