American Microsemiconductor

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25 AMP LEAD MOUNT BUTTON DIODES

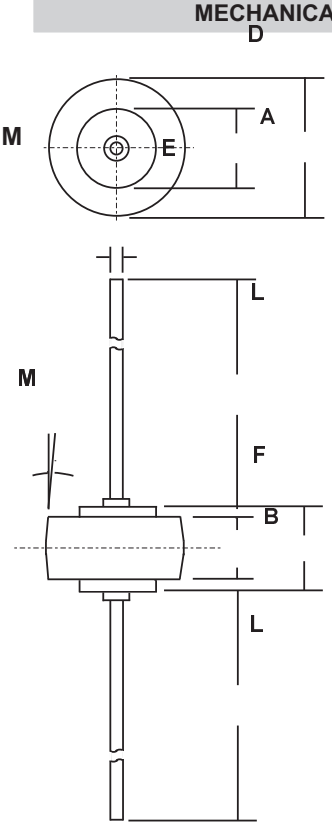
FEATURES

- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical ≤ 2%, Max. ≤ 10% of Die Area)
- LARGE DIE FOR HIGH POWER HEAVY DUTY PERFORMANCE
- HIGH HEAT HANDLING CAPABILITY WITH VERY LOW THERMAL STRESS
- PROPRIETARY JUNCTION PASSIVATION FOR SUPERIOR RELIABILITY AND PERFORMANCE
- LOW FORWARD VOLTAGE DROP

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: 0.165" x 0.165" 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	

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS					UNITS
Series Number	V_{RRM}	*MR750*	*MR751*	*MR752*	*MR754*	*MR756*	
Maximum DC Blocking Voltage	V_{RWM}	50	100	200	400	600	VOLTS
Maximum RMS Voltage	V_{DC}						
Maximum Peak Recurrent Reverse Voltage							
Non-repetitive Peak Reverse Voltage (Half wave, single phase, 60 Hz peak)	V_{RSM}	60	120	240	480	720	
Average Forward Rectified Current @ T_C=150 °C	I_O	25					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I_{FSM}	500					
Maximum Forward Voltage Drop at 25 Amp DC, 3/8" Leads	V_F	1.1 (Typical 1.05)					VOLTS
Maximum Instantaneous Forward Voltage Drop at 100 Amp	V_F	1.25					
Maximum Average DC Reverse Current @ T = 25 °C At Rated DC Blocking Voltage @ T = 100 °C	I_R	1 50					µA
Maximum Thermal Resistance, Junction to Case (Note 1)	$R_{\theta JC}$	0.9					°C/W
Junction Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175					°C

Notes: 1) Both Leads to Heatsink, Equal Length