

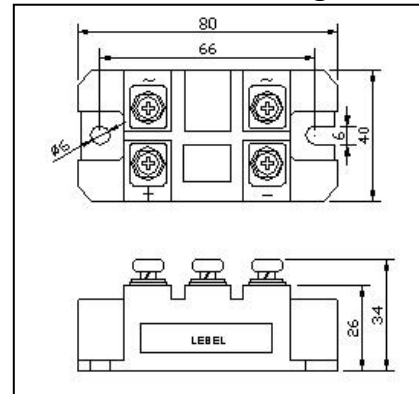
Features

- Glass Passivation Chip
- Easy Connection
- Insulated Type

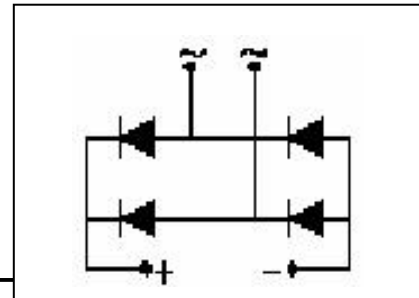
Applications

- DC Motors
- Battery Chargers
- DC power supplies

■ Outline Drawings, mm



■ Inner Circuit Schematic



☐ Maximum Ratings

Type number	Voltage Code	V _{RRM} , maximum repetitive peak reverse voltage V	V _{RSM} , maximum non-repetitive peak rev. voltage V	I _{RRM} max. @ T _J max. mA
MDQ100A	60	600	700	10
	80	800	900	
	100	1000	1100	
	120	1200	1400	
	160	1600	1800	

☐ Electrical Characteristics

Symbol	Parameter	Conditions	Ratings	Unit
I _O	120° Rect conduction angle	Three-phase full wave rectifying circuit, TC=90°C	100	A
I _{FSM}	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value	900	A
I ² t	I ² t for fusing	Value for one cycle of surge current	1800	A ² s
V _{FM}	Repetitive reverse current	T _J =25°C, I _{FM} =300A, instantaneous meas.	1.10	V
I _{RRM}	Forward voltage	T _J =150°C, V _{RRM} applied	10	mA
R _{th} (j-c)	Thermal resistance	Junction to case	0.26	°C /w
R _{th} (c-f)	Contact thermal resistance	Case to fin, conductive grease applied	0.028	°C /w
T _J	Junction temperature		-40to150	°C
T _{stg}	Storage temperature		-40to150	°C
Viso	Isolation voltage	Charged part to case	2500	V
Wt	Weight	Typical value	180	g

■ Characteristics

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