

DIODE MODULE (F.R.D.)

MDF(R)150A-L/M

TOP

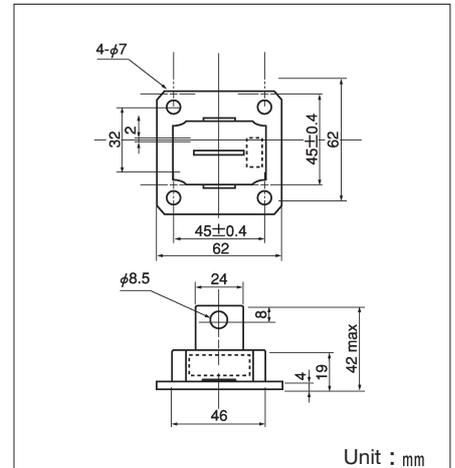
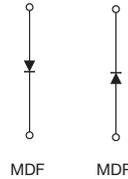


MDF(R)150A-L/M are high speed diode with flat mounting base which is designed for switching application of high power.

- $I_{F(AV)}=150A$ $V_{RRM}=400V$
- Easy Construction with Anode (F) Type and Cathode (R) Type
- Reverse Recovery Time (t_{rr}) L Type: 450ns, M Type: 550ns
- Highly Reliability by Grass passivated Chips

(Applications)

Switching Power Supply.
Inverter Welding Power Supply



Unit : mm

Maximum Ratings

($T_j=25^\circ\text{C}$)

Symbol	Item	Ratings			Unit
		MDF(R)150A20L/M	MDF(R)150A30L/M	MDF(R)150A40L/M	
V_{RRM}	Repetitive Peak Reverse Voltage	200	300	400	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	240	360	480	V
$V_R(DC)$	D.C. Reverse Voltage	160	240	320	V

Symbol	Item	Conditions	Ratings	Unit	
$I_{F(AV)}$	Average Forward Current	Single phase, half wave, 180° conduction, $T_c: 94^\circ\text{C}$	150	A	
$I_{F(RMS)}$	R.M.S. Forward Current	Single phase, half wave, 180° conduction, $T_c: 94^\circ\text{C}$	235	A	
I_{FSM}	Surge Forward Current	$1\frac{1}{2}$ cycle, 50/60Hz, peak value, non-repetitive	2700/3000	A	
I^2t	I^2t	Value for one cycle of surge current	37500	A^2S	
T_j	Operating Junction Temperature		$-30 \sim +150$	$^\circ\text{C}$	
T_{stg}	Storage Temperature		$-30 \sim +125$	$^\circ\text{C}$	
	Mounting Torque	Mounting (M6)	Recommended Value 2.5~3.9 (25~40)	4.7 (48)	N·m (kgf·cm)
		Terminal (M8)	Recommended Value 8.8~10 (90~105)	11 (115)	
	Mass	Typical Value	170	g	

Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit	
I_{RRM}	Repetitive Peak Reverse Current,max	at V_{RRM} , single phase, half wave, $T_j=150^\circ\text{C}$	50	mA	
V_{FM}	Forward Voltage Drop,max	Foward current 470A, $T_j=25^\circ\text{C}$ Inst. measurement	1.30	V	
$R_{th(j-c)}$	Thermal Impedance,max	Junction to case	0.30	$^\circ\text{C}/\text{W}$	
t_{rr}	Reverse Recovery Time,max	$T_j=25^\circ\text{C}$, $I_F=2A$, $di/dt=20A/\mu\text{s}$	L	450	ns
			M	550	

