

## DIODE MODULE (F.R.D.)

# MDF(R)250A-L/M

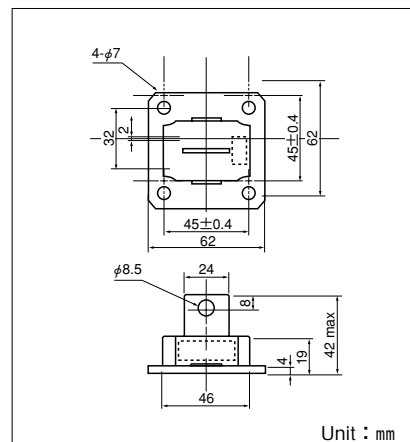
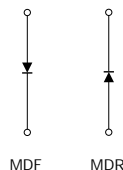
MDF(R)250A-L/M and MDR150-L/M are high speed (fast recovery) diode with flat mounting base which is designed for switching application of high power.

- $I_F(AV)$  250A  $V_{RRM}=200/300/400V$
- Easy Construction with Anode(F) Type and Cathode(R) Type
- [MDF:anode to terminal (normal polarity)]
- [MDR:cathode to terminal]
- Reverse Recovery Time ( $t_{rr}$ ) L Type: 450ns, M Type: 550ns
- High Reliability by Glass passivated Chips
- Non isolated type

### (Applications)

Switching Power Supply.

Inverter Welding Power Supply



## Maximum Ratings

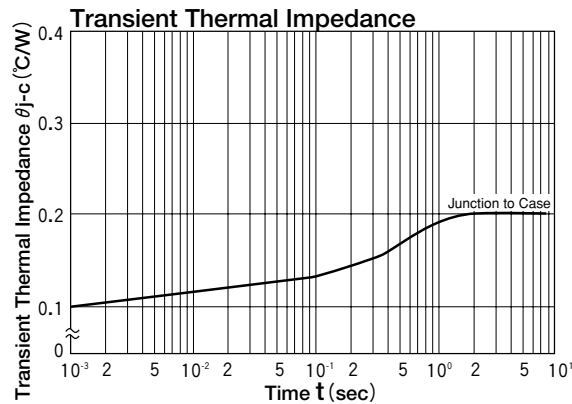
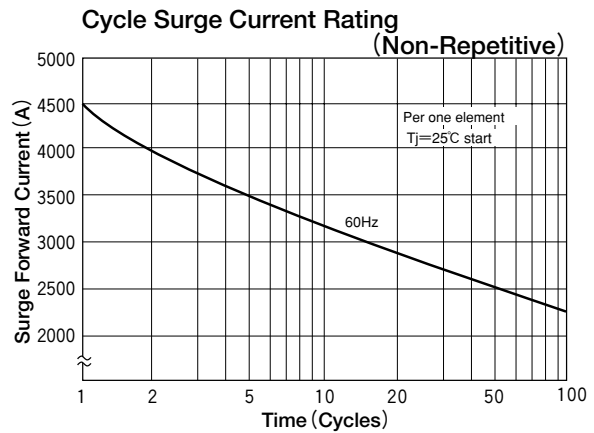
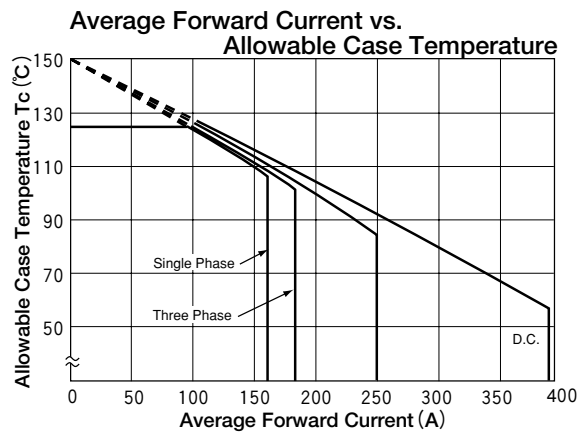
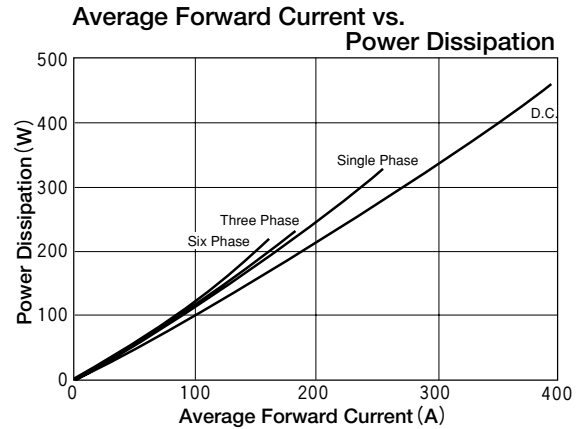
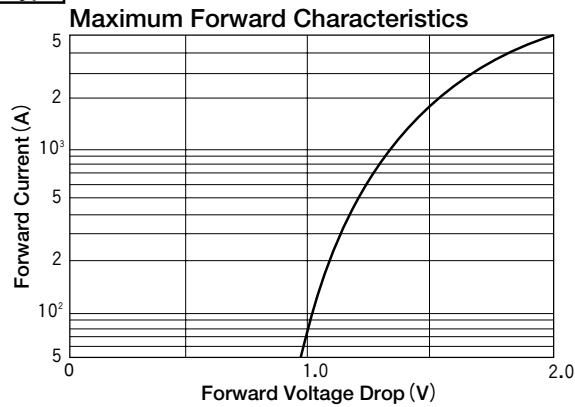
Symbol	Item	Ratings			Unit
		MDF(R)250A20L/M	MDF(R)250A30L/M	MDF(R)250A40L/M	
$V_{RRM}$	Repetitive Peak Reverse Voltage	200	300	400	V
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	240	360	480	V
$V_R(DC)$	D.C. Reverse Voltage	160	240	320	V

Symbol	Item		Conditions	Ratings	Unit
$I_F(AV)$	Average Forward Current		Single phase, half wave, 180° conduction, $T_c: L/M 83^\circ/85^\circ C$	250	A
$I_F(RSM)$	R.M.S. Forward Current		Single phase, half wave, 180° conduction, $T_c: L/M 83^\circ/85^\circ C$	390	A
$I_{FMS}$	Surge Forward Current		$1/2$ cycle, 50/60Hz, peak value, non-repetitive	4000/4500	A
$I^2t$	$I^2t$		Value for one cycle of surge current	84000	A <sup>2</sup> S
$T_J$	Operating Junction Temperature			-30 to +150	°C
$T_{stg}$	Storage Temperature			-30 to +125	°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 <sub>RRM</sub>	Repetitive Peak Reverse Current (max.)	at V <sub>RRM</sub> , single phase, half wave, T <sub>J</sub> =150°C		60	mA
V <sub>FM</sub>	Forward Voltage Drop (max.)	Foward current 800A, T <sub>J</sub> =25°C Inst. measurement	L	1.4	V
			M	1.3	
R <sub>th(j-c)</sub>	Thermal Impedance (max.)	Junction to case		0.2	°C/W
t <sub>rr</sub>	Reverse Recovery Time (max.)	T <sub>J</sub> =25°C, I <sub>F</sub> =2A, −di/dt=20A/μs	L	450	ns
			M	550	

## M Type



## L Type

