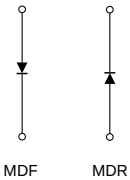
DIODE(NON-ISOLATED TYPE)

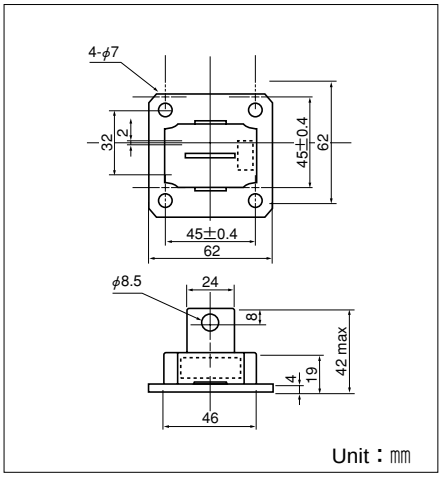
MDF(R)250A

MDF(R)250A is a diode with flat mounting base which is designed for use in various rectifier applications.

- $I_{F(AV)}$=250A, V_{RRM}=500V
- Easy Construction with Anode(F)Type and Cathode(R)type.
- High reliability by glass passivation

(Applications)
Various Rectifiers
Welding Power Supply





■Maximum Ratings

(Tj=25℃ unless otherwise specified)

Symbol	Item	Ratings			Unit
		MDF(R)200A30	MDF(R)200A40	MDF(R)200A50	
V_{RRM}	Repetitive Peak Reverse Voltage	300	400	500	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	360	480	600	V
$V_{R(DC)}$	D.C. Reverse Voltage	240	320	400	V

Symbol	Item		Conditions	Ratings	Unit
$I_{F(AV)}$	Average Forward Current		Single phase, half wave, 180°conduction, Tc：92℃	250	A
$I_{F(RMS)}$	R.M.S. Forward Current		Single phase, half wave, 180°conduction, Tc：92℃	390	A
I_{FSM}	Surge Forward Current		½cycle, 50Hz/60Hz, peak value, non-repetitive	4000/4500	A
I^2t	I^2t		Value for one cycle of surge current	84000	A^2S
Tj	Junction Temperature			−30 to +150	℃
Tstg	Storage Temperature			−30 to +125	℃
	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			170	g

■Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current, max.	at V_{DRM}, single phase, half wave, Tj=150℃	15	mA
V_{FM}	Forward Voltage Drop, max.	Foward current 800A, Tj=25℃, Inst. measurement	1.15	V
Rth(j-c)	Thermal Impedance, max.	Junction to case	0.2	℃/W

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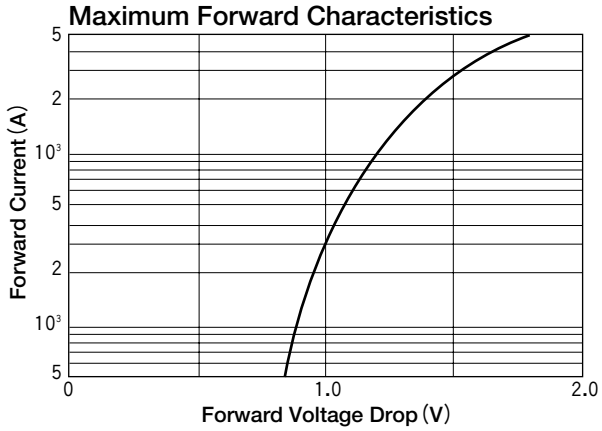
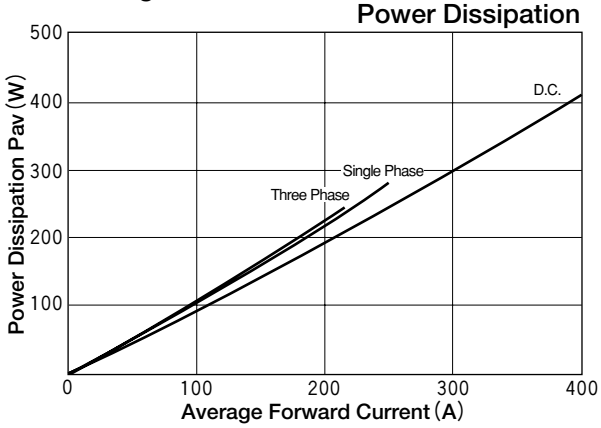
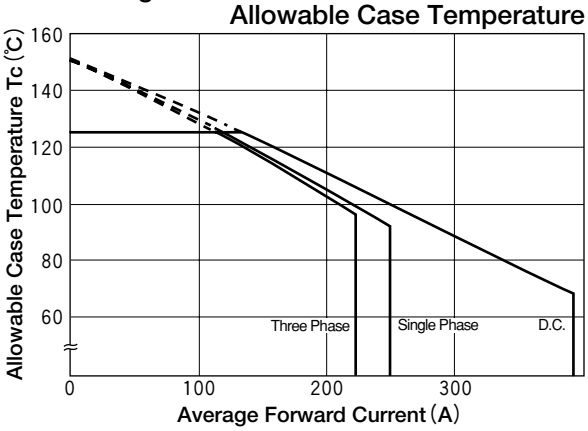
Maximum Forward Characteristics



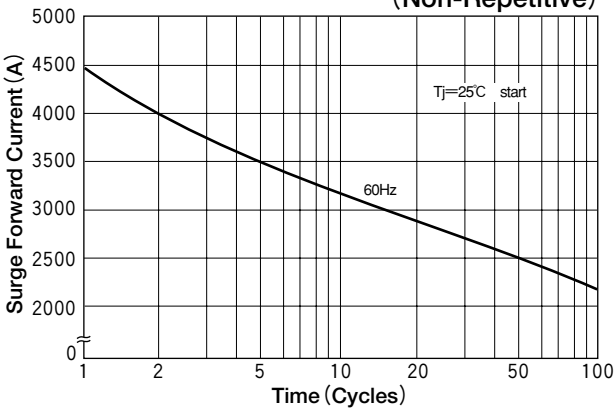
Average Forward Current vs.
Power Dissipation



Average Forward Current vs.
Allowable Case Temperature



Cycle Surge Forward Current Rating
(Non-Repetitive)



Transient Thermal Impedance