

DIODE(NON-ISOLATED TYPE)

MDF(R)200A

TOP

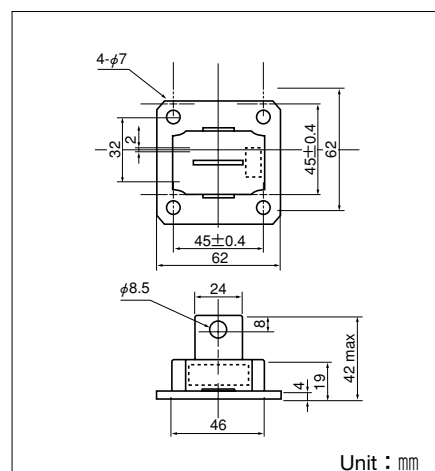
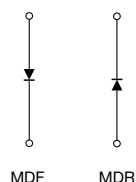


MDF(R)200A is a diode with flat mounting base which is designed for use in various rectifier applications.

- $I_F(AV)=200A$, $V_{RRM}=500V$
- Easy Construction with Anode (F) Type and Cathode (R) type.
- High reliability by glass passivation

(Applications)

Various Rectifiers
Welding Power Supply



Maximum Ratings

($T_j=25^{\circ}C$ unless otherwise specified)

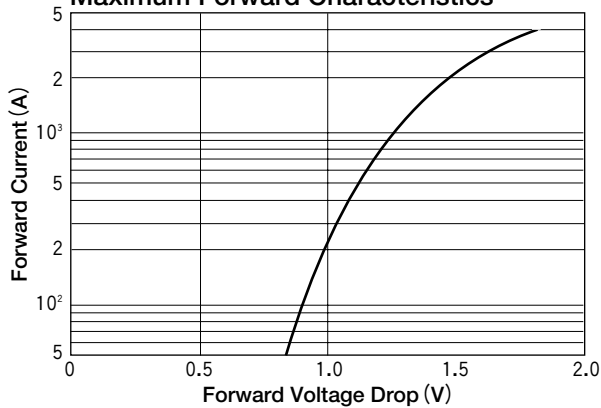
Symbol	Item	Ratings			Unit
		MDF(R)200A30	MDF(R)200A40	MDF(R)200A50	
V_{RRM}	Repetitive Peak Reverse Voltage	300	400	500	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	360	480	600	V
$V_{R(DC)}$	D.C. Reverse Voltage	240	320	400	V

Symbol	Item		Conditions	Ratings	Unit
$I_F(AV)$	Average Forward Current		Single phase, half wave, 180° conduction, $T_c: 92^{\circ}C$	200	A
$I_F(RMS)$	R.M.S. Forward Current		Single phase, half wave, 180° conduction, $T_c: 92^{\circ}C$	314	A
I_{FSM}	Surge Forward Current		$1/2$ cycle, 50Hz/60Hz, peak value, non-repetitive	3600/4000	A
I^2t	I^2t		Value for one cycle of surge current	66600	A^2S
T_j	Junction Temperature			-30 to $+150$	$^{\circ}C$
T_{stg}	Storage Temperature			-30 to $+125$	$^{\circ}C$
	Mounting Torque	Mounting (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	$N \cdot m$ ($kgf \cdot cm$)
		Terminal (M8)	Recommended Value 8.8-10 (90-105)	11 (115)	
	Mass			170	g

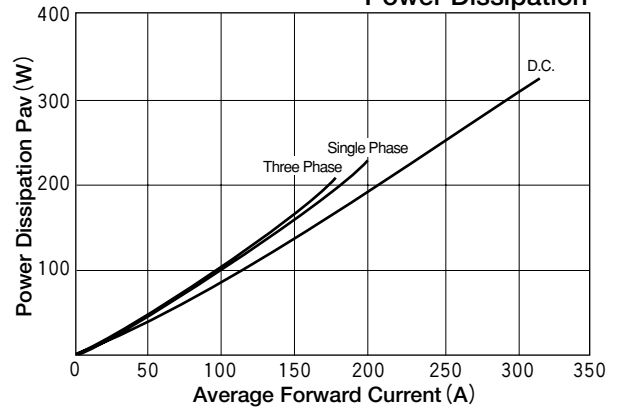
Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current, max.	at V_{DRM} , single phase, half wave, $T_j=150^{\circ}C$	13	mA
V_{FM}	Forward Voltage Drop, max.	Foward current 630A, $T_j=25^{\circ}C$, Inst. measurement	1.15	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.25	$^{\circ}C/W$

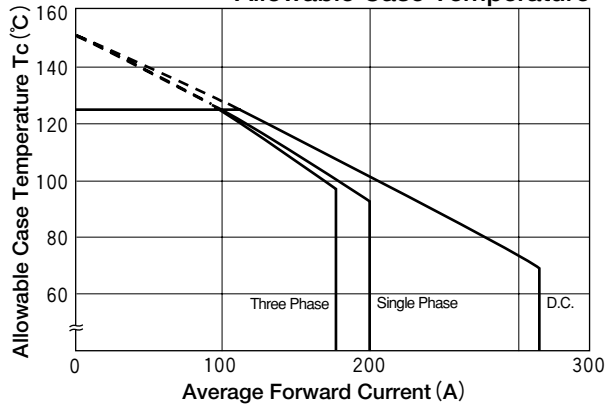
Maximum Forward Characteristics



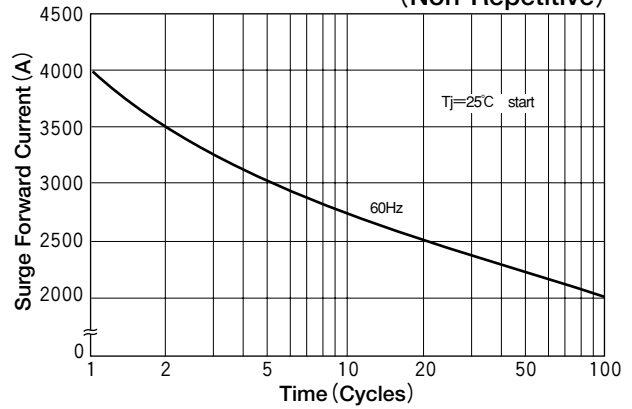
Average Forward Current vs. Power Dissipation



Average Forward Current vs. Allowable Case Temperature



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance

