

# DIODE MODULE

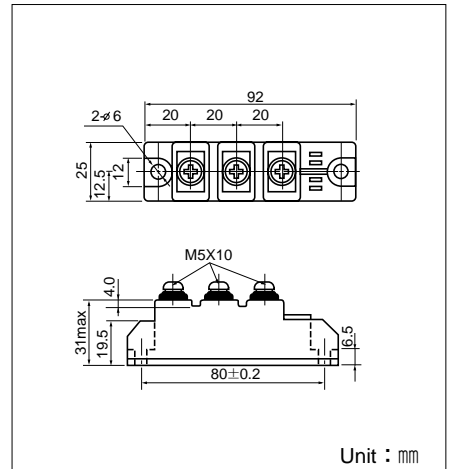
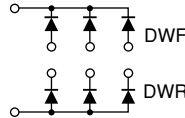
# DWF(R)50A30/40

DWF(R)50A is a non-isolated diode module designed for 3 phase rectification.

- $I_{F(AV)}=50A$ ,  $V_{RRM}=400V$
- Easy Construction with Joint-Cathode (F) Type and Joint-Anode (R) type.
- Non-isolated. (Mounting Base as terminals.)
- High Surge Capability

**(Applications)**

Welding Power Supply  
3 Phase Rectifier



**Maximum Ratings**

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

Symbol	Item	Ratings		Unit
		DWF(R)50A30	DWF(R)50A40	
$V_{RRM}$	Repetitive Peak Reverse Voltage	300	400	V
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	360	480	V
$V_{R(DC)}$	D.C. Reverse Voltage	240	320	V

Symbol	Item	Conditions	Ratings	Unit	
$I_{F(AV)}$	Average Forward Current	Single phase, half wave, $180^{\circ}$ conduction, $T_c : 122^{\circ}C$	50	A	
$I_{F(RMS)}$	R.M.S. Forward Current	Single phase, half wave, $180^{\circ}$ conduction, $T_c : 122^{\circ}C$	78	A	
$I_{FSM}$	Surge Forward Current	$\frac{1}{2}$ cycle, 60Hz, peak value, non-repetitive	1000	A	
$I^2t$	$I^2t$	Value for one cycle of surge current	4150	$A^2S$	
$T_j$	Operating Junction Temperature		-30 to +150	$^{\circ}C$	
$T_{stg}$	Storage Temperature		-30 to +125	$^{\circ}C$	
	Mounting Torque	Mounting (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	N·m (kgf·cm)
		Terminal (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	
	Mass		170	g	

**Electrical Characteristics**

Symbol	Item	Conditions	Ratings	Unit
$I_{RRM}$	Repetitive Peak Reverse Current, max.	at $V_{DRM}$ , single phase, half wave, $T_j=150^{\circ}C$	10	mA
$V_{FM}$	Forward Voltage Drop, max.	Forward current 150A, $T_j=25^{\circ}C$ , Inst. measurement	1.15	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.50	$^{\circ}C/W$

