

DIODE MODULE

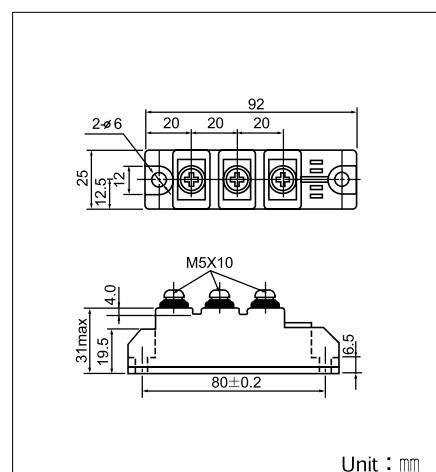
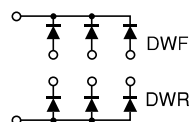
DWF(R)40A30/40

DWF(R)40A is a non-isolated diode module designed for 3 phase rectification.

- $I_F(AV) = 40A$, $V_{RRM} = 400V$
- 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

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

Symbol	Item	Ratings		Unit
		DWF(R)40A30	DWF(R)40A40	
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° conduction, $T_c : 122^\circ\text{C}$	40	A
$I_F(RMS)$	R.M.S. Forward Current		Single phase, half wave, 180° conduction, $T_c : 122^\circ\text{C}$	62	A
I_{FSM}	Surge Forward Current		$\frac{1}{2}$ cycle, 60Hz, peak value, non-repetitive	800	A
I^2t	I^2t		Value for one cycle of surge current	2700	A^2S
T_j	Operating Junction Temperature			-30 to $+150$	$^\circ\text{C}$
T_{stg}	Storage Temperature			-30 to $+125$	$^\circ\text{C}$
	Mounting Torque	Mounting (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	$\text{N}\cdot\text{m}$ ($\text{kgf}\cdot\text{cm}$)
		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, $T_j = 150^\circ\text{C}$	8	mA
V_{FM}	Forward Voltage Drop, max.	Forward current 120A, $T_j = 25^\circ\text{C}$, Inst. measurement	1.15	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.60	$^\circ\text{C}/\text{W}$

