

Benefits

- **TRIPLE ARMS**
- **Non-Insulated Type**

APPLICATION

- Welders



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Voltage class	Unit
		4	
VRRM	Repetitive peak reverse voltage	400	V
VRSM	Non-repetitive peak reverse voltage	480	V
VR (DC)	DC reverse voltage	480	V
VDRM	Repetitive peak off-state voltage	600	V
VD SM	Non-repetitive peak off-state voltage	720	V
VD (DC)	DC off-state voltage	480	V

Absolute Maximum Ratings

Symbol	Parameter	Conditions	Ratings	Unit
IT (RMS)	RMS on-state current		230	A
IT (AV)	Average on-state current	Three-phase, half-wave, Tc=119°C	150	A
ITSM	Surge (non-repetitive) on-state current	One half cycle at 60Hz, peak value	3000	A
I ² _t	I ² _t for fusing	Value for one cycle of surge current	45000	A ² s
di/dt	Critical rate of rise of on-state current	VD=1/2VDRM, IG=1.0A, Tj=125°C	80	A/μs
PGM	Peak gate power dissipation		5.0	W
PG (AV)	Average gate power dissipation		0.5	W
VFGM	Peak gate forward voltage		10	V
VRGM	Peak gate reverse voltage		5.0	V
IFGM	Peak gate forward current		2.0	A
Tj	Junction temperature		-40~+150	°C
Tstg	Storage temperature		-40~+125	°C
—	Mounting torque	Main terminal screw M8	8~10	N·m
			80~100	kg·cm
		Mounting screw M6	1.9~2.9	N·m
			20~35	kg·cm
—	Weight	Typical value	215	g

MTG150WM40

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I _{RRM}	Repetitive peak reverse current	T _j =125°C, V _{RRM} applied	—	—	30	mA
I _{DRM}	Repetitive peak off-state current	T _j =125°C, V _{DRM} applied	—	—	30	mA
V _{TM}	On-state voltage	T _j =125°C, I _{TM} =600A, instantaneous meas.	—	—	1.1	V
dv/dt	Critical rate of rise of off-state voltage	T _j =125°C, V _D =2/3V _{DRM}	200	—	—	V/μs
V _{GT}	Gate trigger voltage	T _j =25°C, V _D =6V, I _T =1A	—	—	2.0	V
V _{GD}	Gate non-trigger voltage	T _j =125°C, V _D =1/2V _{DRM}	0.25	—	—	V
I _{GT}	Gate trigger current	T _j =25°C, V _D =6V, I _T =1A	15	—	100	mA
R _{th(j-c)}	Thermal resistance	Junction to case (per 1/3 module)	—	—	0.16	°C/W

Case outline-WM-pak

