

**Features:**

- Isolated mounting base 2500V~
- Simple design, Module and SCR rectifier bridge, Small volume, light weight

Typical Applications:

- Supplies for DC power equipment
- Field supply for DC motors
- Inverter welder

V _{DRM} , V _{R_{RRM}}	Type & Outline
600V	MDST150-06-421H6
800V	MDST150-08-421H6
1000V	MDST150-10-421H6
1200V	MDST150-12-421H6
1400V	MDST150-14-421H6
1600V	MDST150-16-421H6
1800V	MDST150-18-421H6

Diode

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _j (°C)	VALUE			UNIT
				Min	Type	Max	
I _D	DC output current	Three-phase full wave rectifying circuit, T _C =100°C	125			150	A
V _{R_{RRM}}	Repetitive peak reverse voltage	tp=10ms	125	600		1600	V
I _{R_{RRM}}	Repetitive peak current	at V _{R_{RRM}}	125			8	mA
I _{FSM}	Surge forward current	10ms half sine wave V _R =0	125			1.3	kA
I ² t	I ² t for fusing coordination					8.45	10 ³ A ² s
V _{FO}	Threshold voltage		125			0.85	V
r _F	Forward slope resistance					1.60	m
V _{FM}	Peak forward voltage	I _{FM} =150A	25			1.40	V
R _{th(j-c)}	Thermal resistance Junction to case	Single side cooled, per chip				0.15	°C/W
R _{th(c-h)}	Thermal resistance case to heatsink	Single side cooled, per chip				0.07	°C/W
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(max)		3000			V
F _m	Terminal connection torque(M6)			4.5		6.0	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T _{vj}	Junction temperature			-40		125	°C
T _{stg}	Stored temperature			-40		125	°C
W _t	Weight				340		g
Outline	421H6						

Thyristor

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _j (°C)	VALUE			UNIT
				Min	Type	Max	
I _{T(AV)}	Mean on-state current	180° half sine wave 50Hz Single side cooled, T _c =100°C	125			150	A
V _{DRM} V _{RPM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	600		1600	V
I _{DRM} I _{RPM}	Repetitive peak current	at V _{DRM} at V _{RPM}	125			40	mA
I _{TSM}	Surge on-state current	10ms half sine wave	125			1.3	kA
I ² t	I ² t for fusing coordination	V _R =60%V _{RPM}					8.45
V _{TO}	Threshold voltage		125			0.85	V
r _T	On-state slop resistance						1.6
I _{GT}	Gate trigger current		25	30		200	mA
V _{GT}	Gate trigger voltage			0.6		2.5	V
I _H	Holding current	V _A =12V, I _A =1A		10		250	mA
I _L	Latching current					1000	mA
V _{GD}	Non-trigger gate voltage	V _{DM} =67%V _{DRM}	125			0.30	V
V _{TM}	Peak on-state voltage	I _{TM} =450A	25			1.65	V
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =67%V _{DRM}	125			500	V/μs
R _{th(j-c)}	Thermal resistance Junction to case	Single side cooled, per chip				0.20	°C /W
R _{th(c-h)}	Thermal resistance case to heatsink	Single side cooled, per chip				0.10	°C /W
V _{iso}	Isolation voltage	50Hz, R.M.S., t=1min, I _{iso} :1mA(MAX)		3000			V
F _m	Terminal connection torque(M6)			4.5		6.0	N·m
	Terminal connection torque(M4)			1.5		2.5	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T _{vj}	Junction temperature			-40		125	°C
T _{stg}	Stored temperature			-40		125	°C
W _t	Weight				340		g
Outline	421H6						

