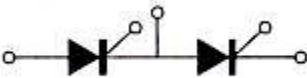


Thyristor Diode Modules (500-800A)

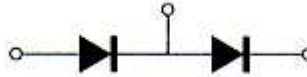
Typical Applications

- Commute power supply
- Switch with no contact
- Temperature control for industrial calefaction
- Electric welding, Transducer
- Battery charge or discharge

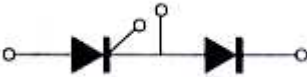
Dual Thyristor Modules

Circuit Diagram	$V_{RSM}V_{RRM}$	$I_{DAV}(T_{case}= 100\text{ }^{\circ}C,)$		
		500A	600A	800A
	800V	MTT-500-08	MTT-600-08	MTT-800-08
	1200V	MTT-500-12	MTT-600-12	MTT-800-12
	1400V	MTT-500-14	MTT-600-14	MTT-800-14
	1600V	MTT-500-16	MTT-600-16	MTT-800-16
	1800V	MTT-500-18	MTT-600-18	MTT-800-18

Dual Diode Modules

Circuit Diagram	$V_{RSM}V_{RRM}$	$I_{DAV}(T_{case}= 100\text{ }^{\circ}C,)$		
		500A	600A	800A
	800V	MDD-500-08	MDD-600-08	MDD-800-08
	1200V	MDD-500-12	MDD-600-12	MDD-800-12
	1400V	MDD-500-14	MDD-600-14	MDD-800-14
	1600V	MDD-500-16	MDD-600-16	MDD-800-16
	1800V	MDD-500-18	MDD-600-18	MDD-800-18

Thyristor Diode Modules

Circuit Diagram	$V_{RSM}V_{RRM}$	$I_{DAV}(T_{case}= 100\text{ }^{\circ}C,)$		
		500A	600A	800A
	800V	MTD-500-08	MTD-600-08	MTD-800-08
	1200V	MTD-500-12	MTD-600-12	MTD-800-12
	1400V	MTD-500-14	MTD-600-14	MTD-800-14
	1600V	MTD-500-16	MTD-600-16	MTD-800-16
	1800V	MTD-500-18	MTD-600-18	MTD-800-18

Electrical Specifications

Symbol	Specifications Names	Specifications Limits			Units	Conditions
I_{TAV}	Average on-state current	500	600	800	A	$T_{VJ}= T_{VJM} 180^{\circ},sin.$
I_{FAV}	Average forward current	500	600	800	A	

I^2t		455 456	583 583	1037 1037	KA^2s KA^2s	$t=10\text{ mS } T_J=45^\circ C$ $t=8.3\text{ mS } T_J=45^\circ C 100\% V_{RRM}$
$I_{TSM} I_{FSM}$	Surge current	8400 9000	9100 9800	9500 11000	A A	$t=10\text{ mS}$ $t=8.3\text{ mS}$
I_{RRM} I_{DRM}	Maximum repetitive peak reverse Leakage current Maximum repetitive peak off-state Leakage current	20	20	35	mA	$T_J=125^\circ C,$
V_{RRM}	Maximum repetitive peak reverse voltage	800-1800			V	$125^\circ C I_{RRM}, I_{DRM} \leq 10\text{ mA}$
V_{DRM}	Maximum repetitive peak off-state voltage					
V_{TM} V_{FM}	Peak value on-state voltage Peak value forward voltage	1.9			V	$I_{TM}=\pi I_{TAV}; I_{FM}=\pi I_{FAV} T_J=25^\circ C$
di/dt	Critical rate of rise of on-state current	150			A/ μs	$T_J=25^\circ C, 0.67 V_{DRM}, I_g=500\text{ mA}$ $t_r < 0.5\mu s, t_p > 6\mu s$
dv/dt	Critical rate of rise of on-state voltage	500			V/ μs	$T_J=125^\circ C, 0.67 V_{DRM}$
I_H	Holding current	200			mA	$T_J=25^\circ C$ Anode voltage=6v
I_L	Latching current	400			mA	$T_J=25^\circ C$ Anode voltage=6v
P_{GM}	Peak gate power dissipation	12	12	14	W	
I_{GM}	Peak gate power current	3	3	4	A	
V_{GT}	Gate trigger voltage	3			V	$T_J=25^\circ C$ Anode voltage=6v
I_{GT}	Gate trigger current	150			mA	
V_{ISO}	Insulation test voltage	2500			V	50Hz, $t=1\text{ min}$
T_J	Junction temperature	-40 to 125			$^\circ C$	
T_{stg}	Storage temperature					
R_{thJC}	Thermal resistance junction to case	0.06	0.06	0.04	K/W	Per module, DC
R_{thCS}	Thermal resistance case to heat-sink	0.015			K/W	Per module, DC
Wt	Weight(Typical)	1061	1650	3108	g	
	Size				mm	
	Colour	Black				
		Water-cooling				

Dimension

