GD RECTIFIERS
The Custom Power Specialist

MDC1200 MDA1200 MDK1200 MD1200
Diode Modules

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with Incrtased power cycling capability
- Space and weight savings

Typical Applications

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{F(AV)}$	1200A
V_{RRM}	600~1800V
I_{FSM}	34 A×10^3
I^2t	5780A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_j(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Single side cooled,T_c=100°C	150			1200	A
$I_{F(RMS)}$	RMS forward current		150			1884	A
V_{RRM}	Repetitive peak reverse voltage	V_{RRM} tp=10ms V_{RSM}= V_{RRM}+100V	150	600		1800	V
I_{RRM}	Repetitive peak current	at V_{RRM}	150			50	mA
I_{FSM}	Surge forward current	10ms half sine wave V_R=0.6V_{RRM}	150			34	KA
I^2t	I^2T for fusing coordination					5780	A^2s*10^3
V_{FO}	Threshold voltage		150			0.71	V
r_F	Forward slop resistance					0.11	mΩ
V_{FM}	Peak forward voltage	I_{FM}=3000A	25			1.86	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine· Single side cooled				0.040	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink	At 180° sine· Single side cooled				0.020	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min, I_{iso}:1mA(max)		2500			V
F_m	Terminal connection torque(M12)				14		N·m
	Mounting torque(M8)				12		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				3800		g
Outline	412F3/432F2						

Peak forward Voltage Vs.Peak forward Current

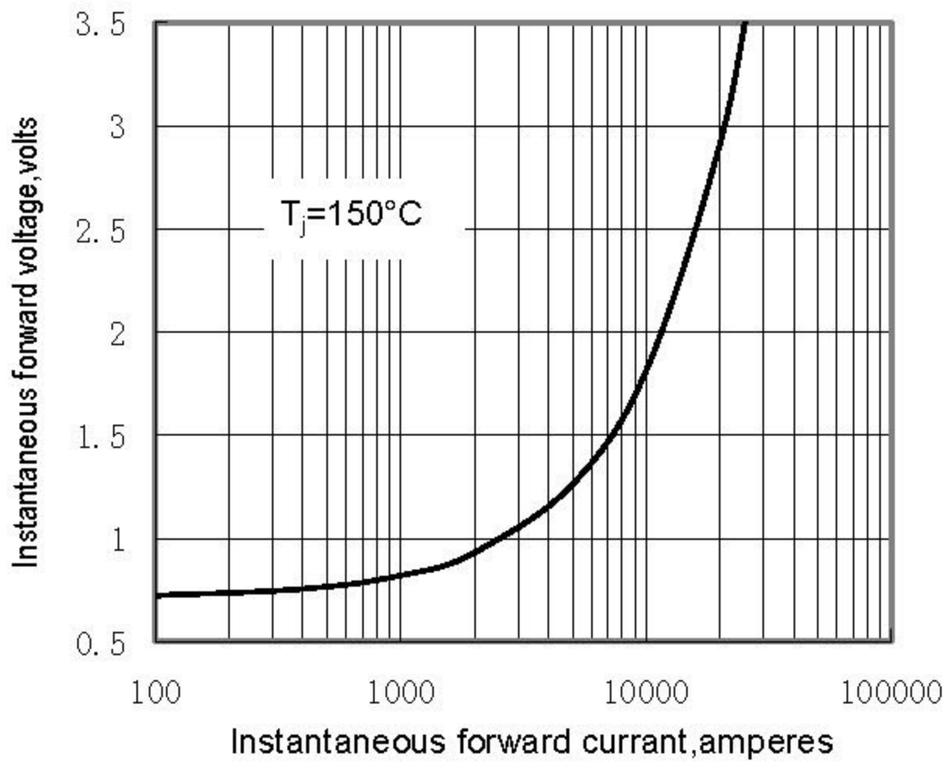


Fig.1

Max. junction To case Thermai Impedance Vs.Time

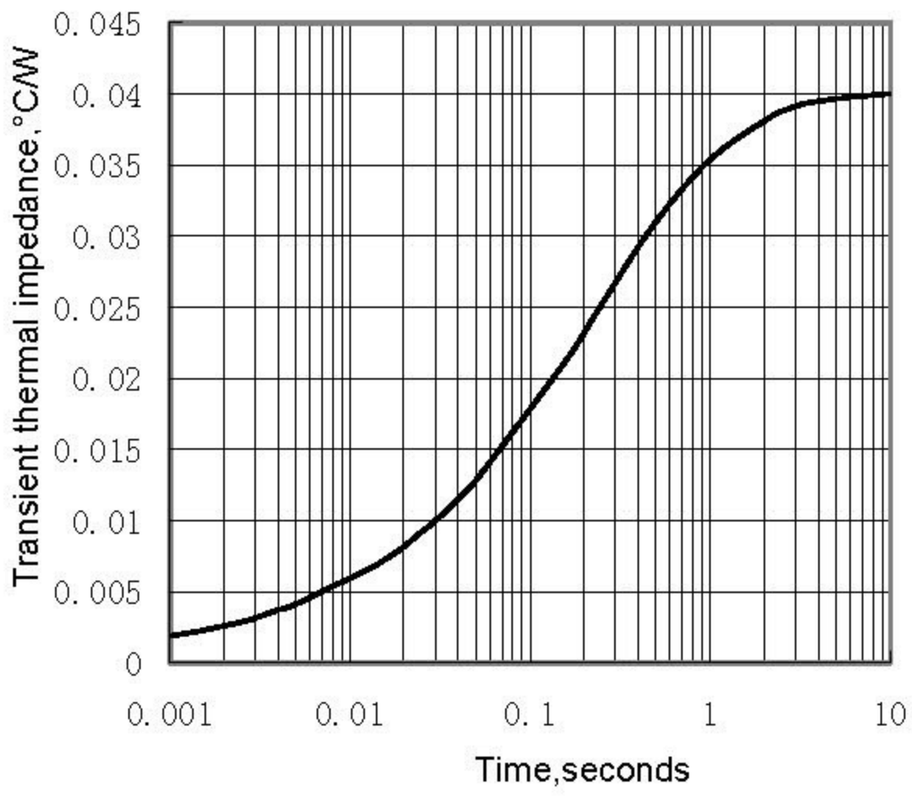


Fig.2

Max. Power Dissipation Vs.Mean forward Current

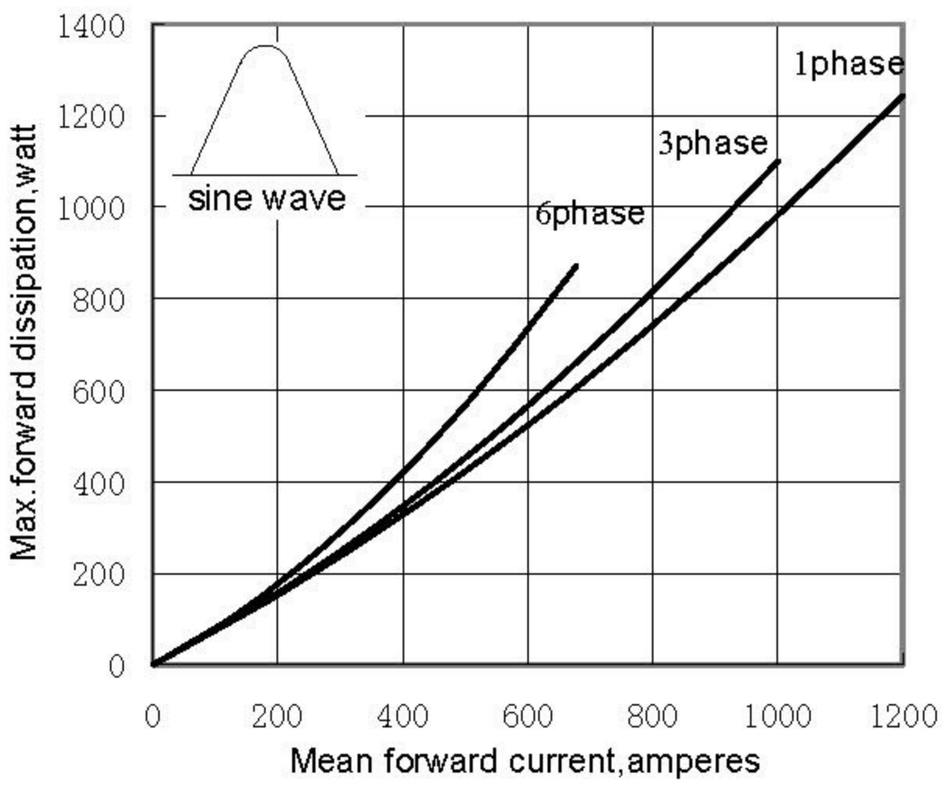


Fig.3

Max. case Temperature Vs.Mean forward Current

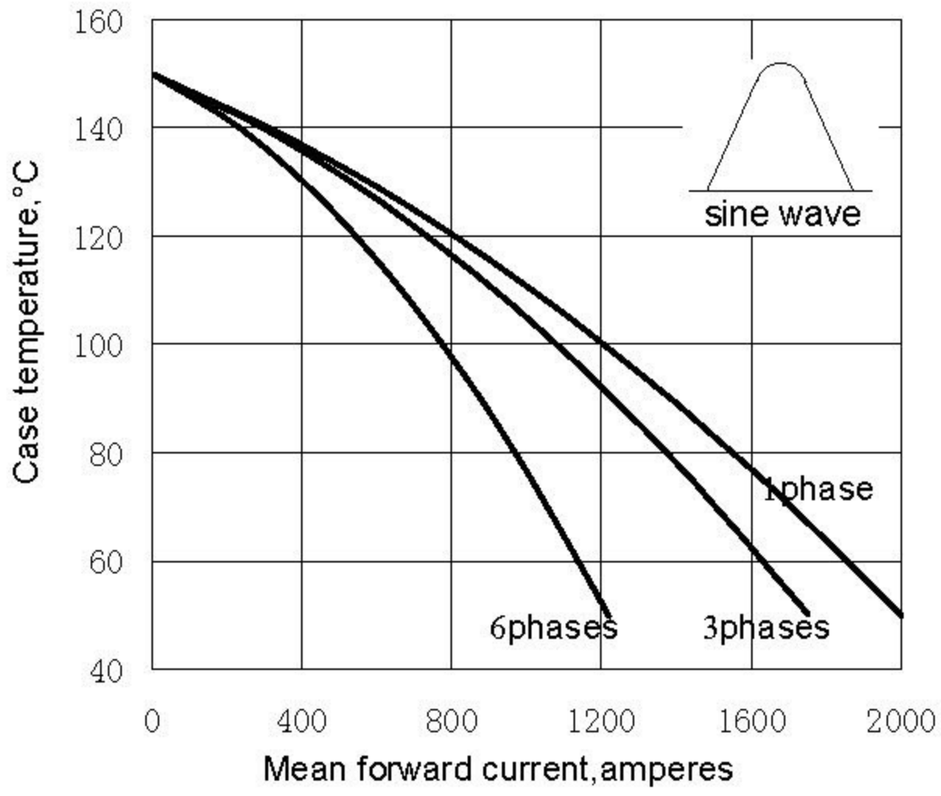


Fig.4

Max. Power Dissipation Vs.Mean forward Current

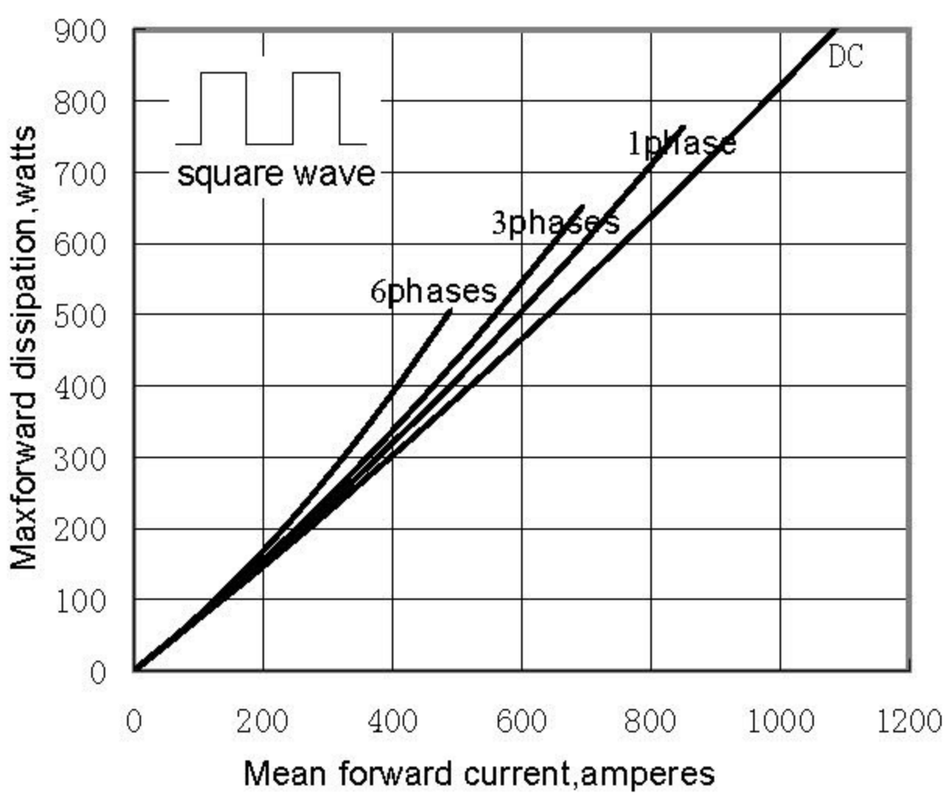


Fig.5

Max. case Temperature Vs.Mean forward Current

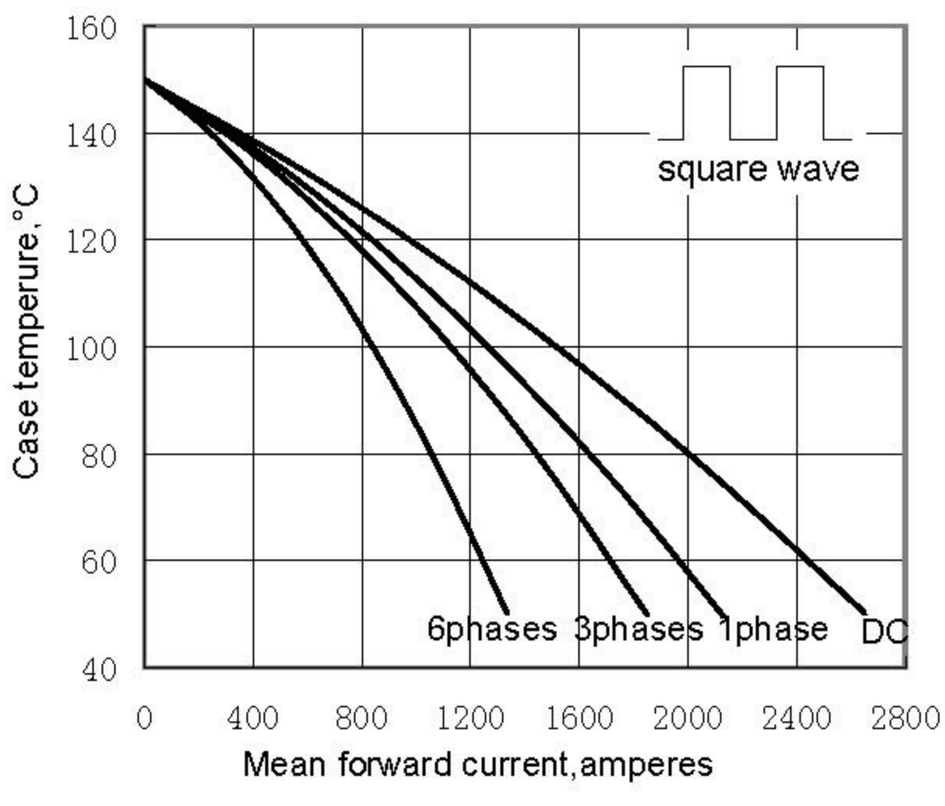


Fig.6

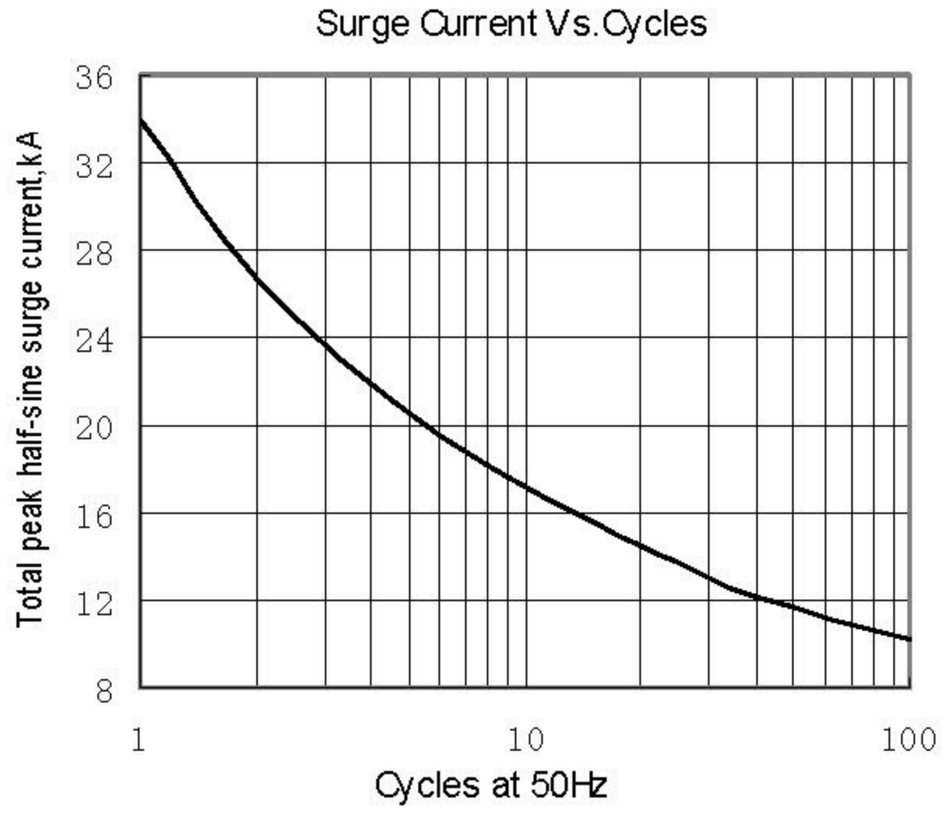


Fig.7

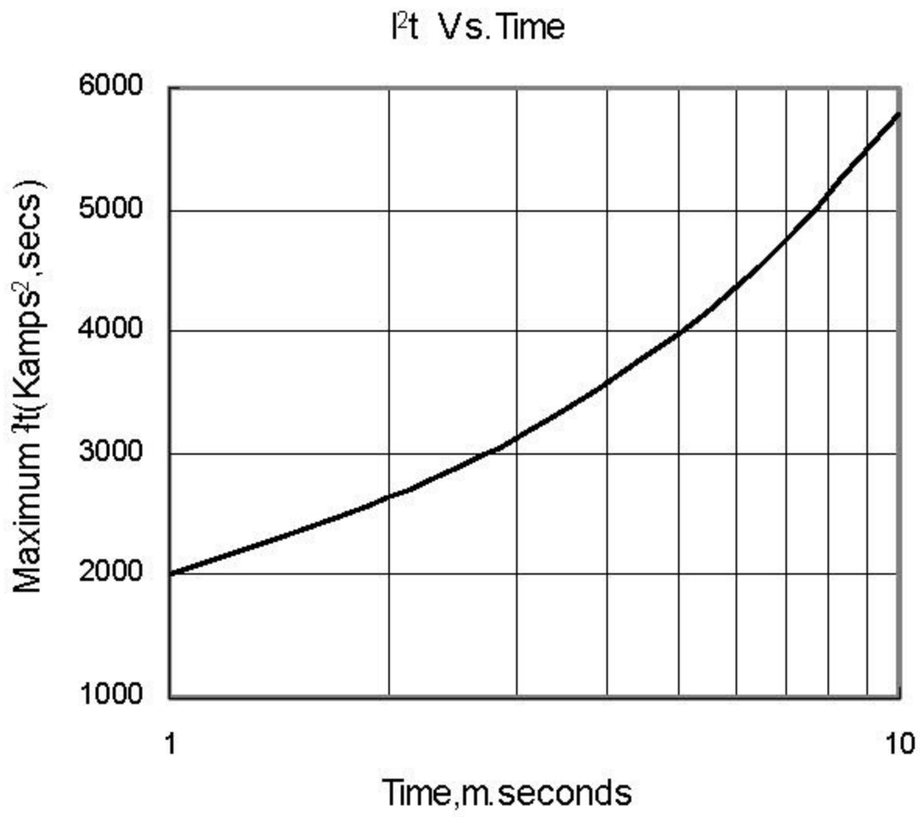
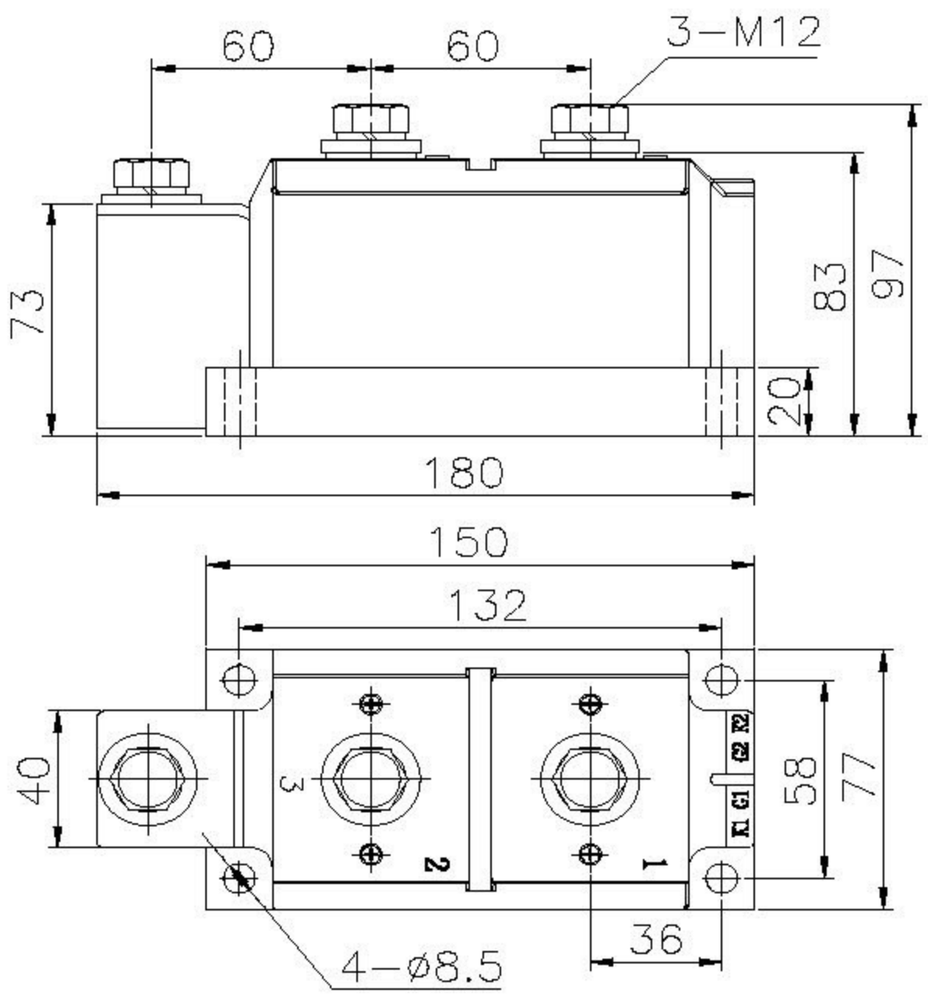
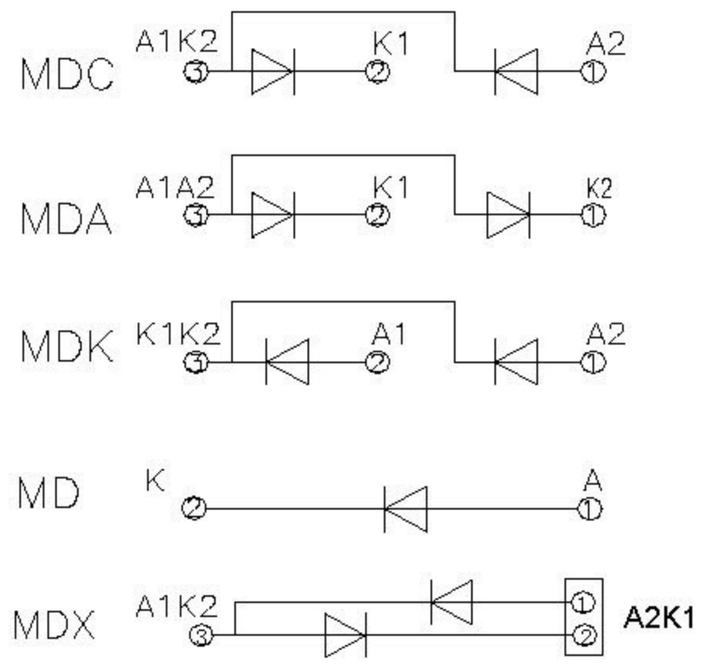


Fig.8

Outline: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