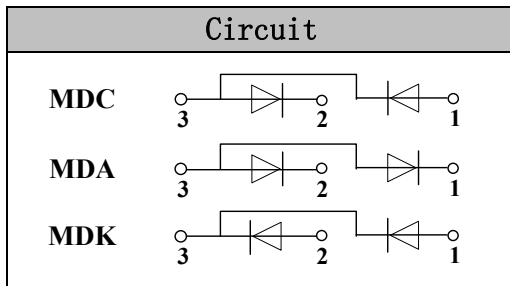


CURRENT 500 Ampere
VOLTAGE RANG 600 to 1800 Volts

MDK500; MDA500; MDC500

VRRM 800 to 1800V

IFAV 500 Amp



Applications

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

Features

- Blocking voltage:800 to 1800V
- Heat transfer through aluminum nitride ceramic isolated metal baseplate

Module type

TYPE			VRRM	VRSRM
MDC500-08	MDA500-08	MDK500-08	800V	900V
MDC500-12	MDA500-12	MDK500-12	1200V	1300V
MDC500-16	MDA500-16	MDK500-16	1600V	1700V
MDC500-18	MDA500-18	MDK500-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Tc=85°C	500	A
IFSM	t=10mS Tvj =45°C	20000	A
i ² t	t=10mS Tvj =45°C	2000000	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min	3000	V
T _{vj}		-40 to +150	°C
T _{stg}		-40 to +125	°C
Mt	To terminals	9±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module	2050	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Module	0.04	°C/W
R _{th(c-s)}	Module	0.015	°C/W

Electrical Characteristics

Symbol	Conditions	Values	Units
V _{FM}	T=25°C IFM =1500A	1.8	V
IRD	Tvj=TvjM VRD=VRRM	≤25	mA

CURRENT 500 Ampere
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Performance Curves

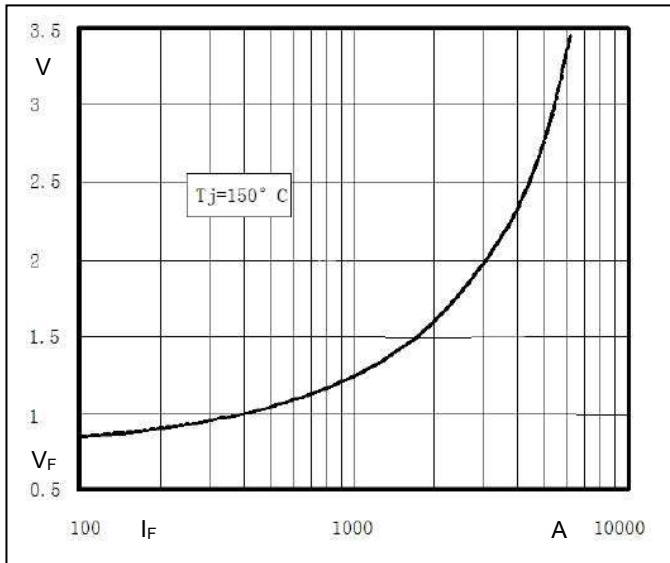


Fig1. Forward Characteristics

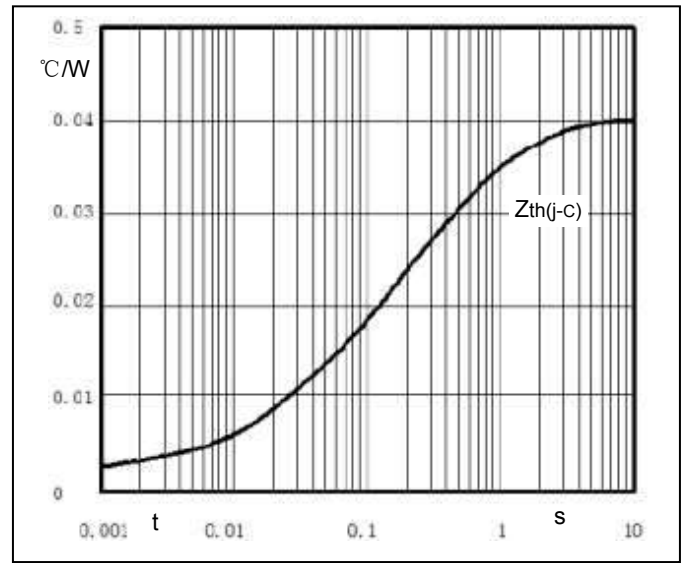


Fig2. Transient thermal impedance

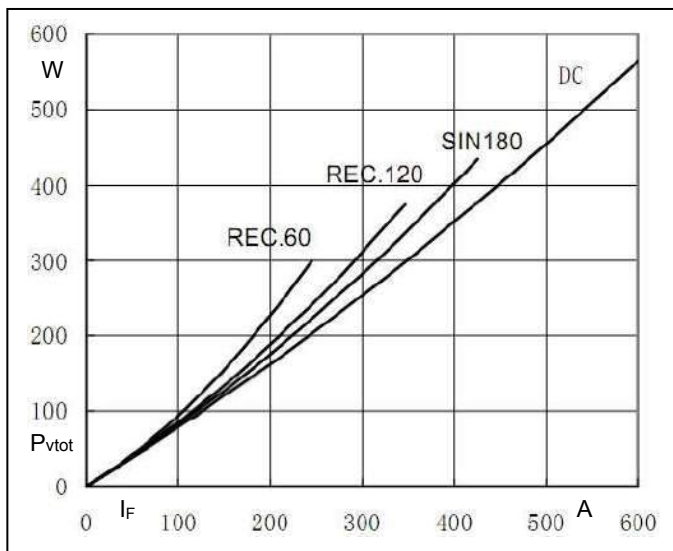


Fig3. Power dissipation

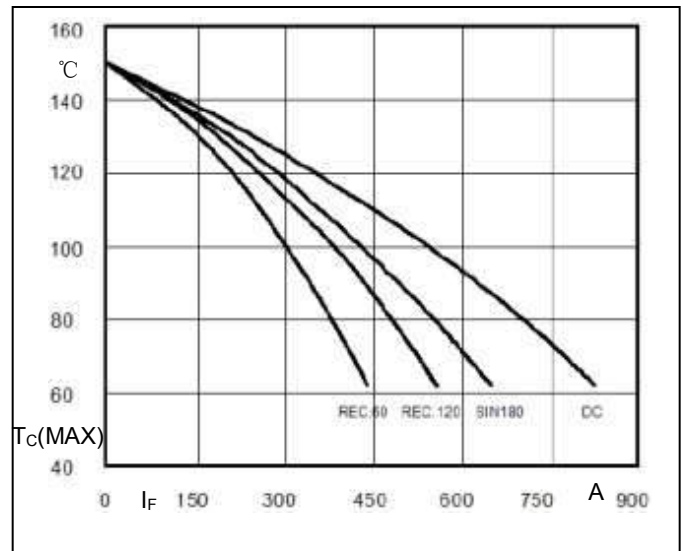


Fig4. case temperatruue vs. forward current

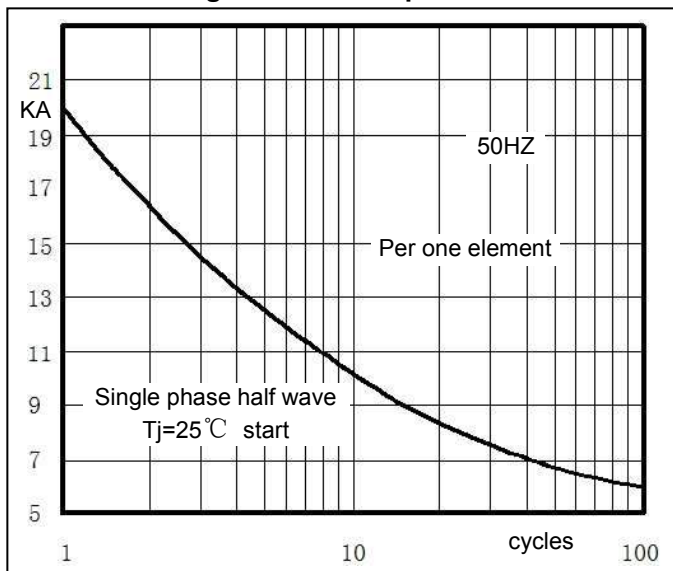


Fig5. Max Non-Repetitive Forward Surge Current

CURRENT 500 Ampere
 VOLTAGE RANG 600 to 1800 Volts

MDK500; MDA500; MDC500

Package Outline Information

