

CURRENT 300 Ampere
 VOLTAGE RANG 600 to 1800 Volts

MDK300; MDA300; MDC300



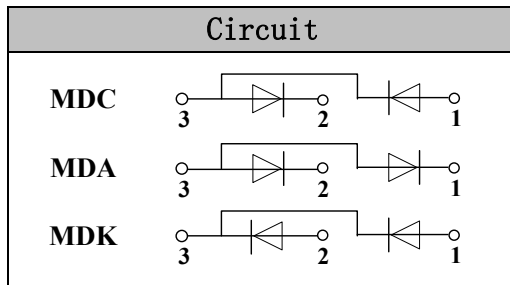
VRRM 800 to 1800V
IFAV 300 Amp

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	VRSM
MDC300-08	MDA300-08	MDK300-08	800V	900V
MDC300-12	MDA300-12	MDK300-12	1200V	1300V
MDC300-16	MDA300-16	MDK300-16	1600V	1700V
MDC300-18	MDA300-18	MDK300-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Tc=85°C	300	A
IFSM	t=10mS Tvj =45°C	11000	A
i ² t	t=10mS Tvj =45°C	605000	A ² s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	°C
Tstg		-40 to +125	°C
Mt	To terminals(M8)	9±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module	865	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Module	0.08	°C/W
Rth(c-s)	Module	0.05	°C/W

Electrical Characteristics

Symbol	Conditions	Values	Units
VFM	T=25°C IFM =900A	1.8	V
IRD	Tvj=TvjM VRD=VRRM	≤15	mA

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Performance Curves

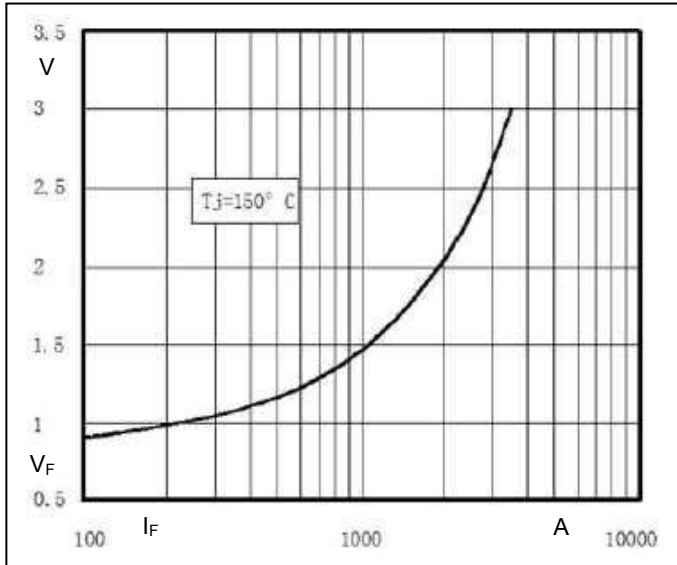


Fig1. Forward Characteristics

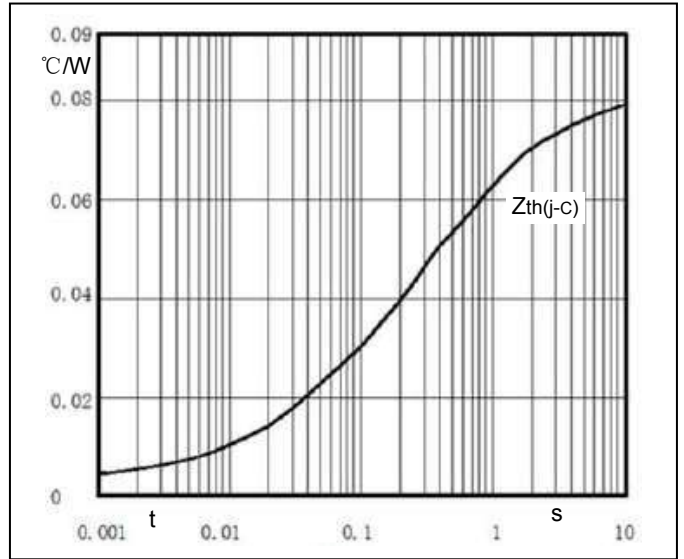


Fig2. Transient thermal impedance

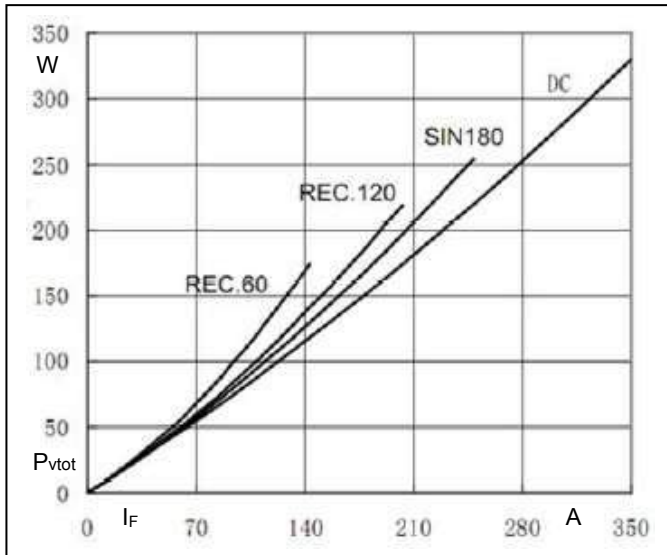


Fig3. Power dissipation

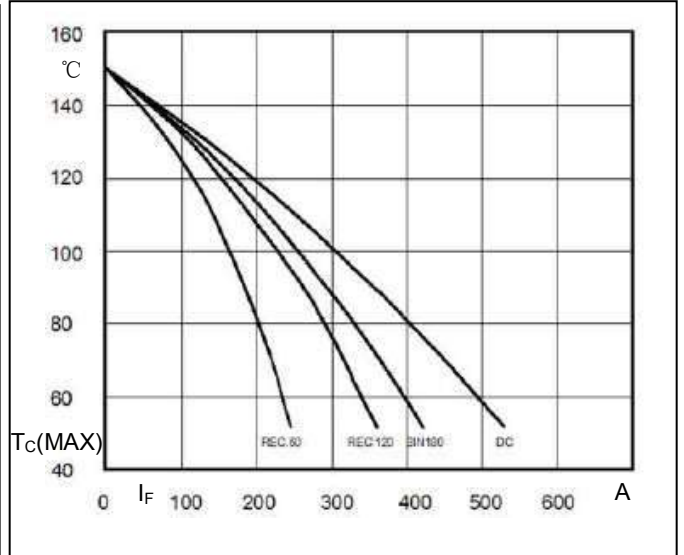


Fig4. case temperature vs. forward current

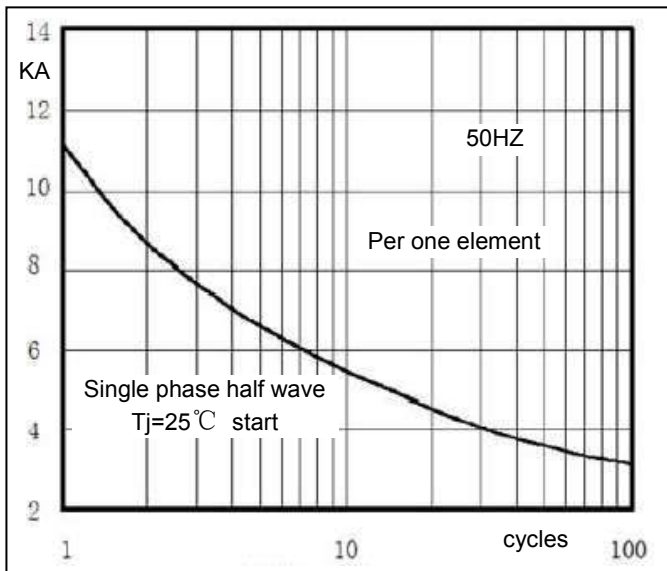


Fig5. Max Non-Repetitive Forward Surge Current

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Package Outline Information

