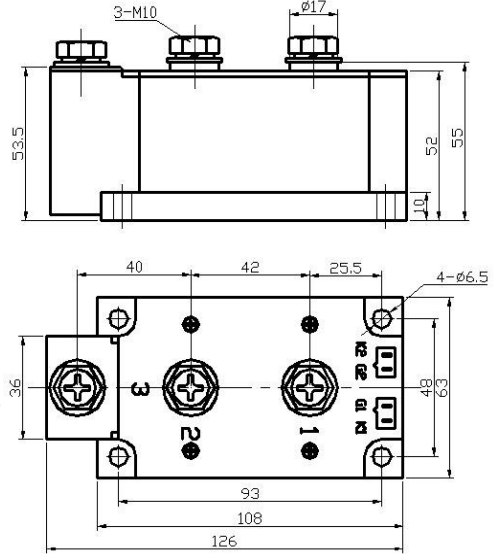


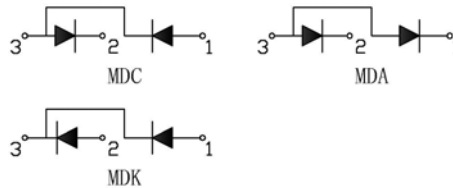
Feature

- International standard package
- Low forward voltage drop
- Isolation voltage 2500V~



Application

- AC/DC motor control
- Input rectifying power supply for PWM converters
- Power supply for DC devices



Maximum value

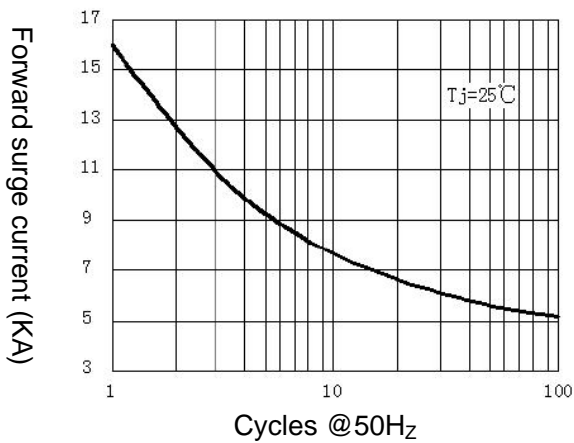
Symbol	Parameter	Rating				Unit
		MDC500-08 MDA500-08 MDK500-08	MDC500-12 MDA500-12 MDK500-12	MDC500-16 MDA500-16 MDK500-16	MDC500-18 MDA500-18 MDK500-18	
V_{RRM}	Peak reverse repetitive voltage	800	1200	1600	1800	V
V_{RSM}	Peak reverse non-repetitive voltage	900	1300	1700	1900	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Forward average current	180° sine half wave 50Hz Single side heat dissipation $T_C=100^\circ\text{C}$	500	A
$I_{F(RMS)}$	Forward square root current	Single side heat dissipation, 180° sine half wave, 50Hz, $T_C=100^\circ\text{C}$	785	A
I_{FSM}	Forward surge current	$t=10\text{ms}, 50\text{Hz}, \sin, T_{jm}$	16000	A
I^2t	I^2t value	$V_R = 0.6V_{RRM}, T_{jm}$	1280000	A^2S
V_{ISO}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}, I_{iso}:1\text{mA}(\text{max})$	2500	V
T_j	Operating junction temperature		-40 to +150	$^\circ\text{C}$
T_{jm}	Rated junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-40 to +125	$^\circ\text{C}$
Md	Mounting torque (copper plate) M6		5	N·m
	Mounting torque(connection terminal) M10		12	N·m
W_t	Weight		1600	g

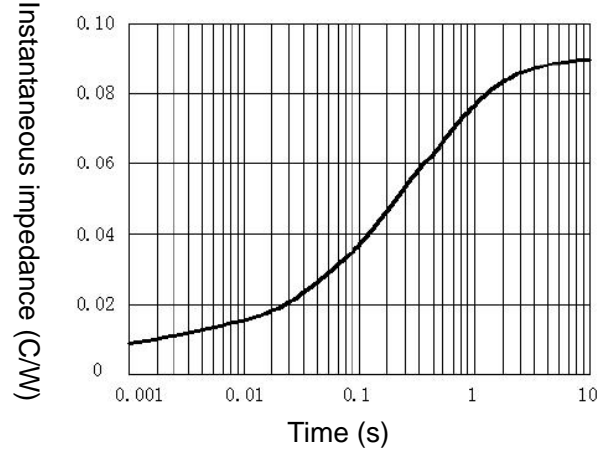
Electrical characteristics

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Reverse repetitive peak current	Single side heat dissipation, $V_R=V_{RRM}$, sine half wave, $T_j=150^\circ\text{C}$	30	mA
V_{FM}	Peak forward voltage	$I_{FM}=1500\text{A}, T_j=25^\circ\text{C}$	1.50	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single side heat dissipation, sine half wave	0.09	$^\circ\text{C}/\text{W}$

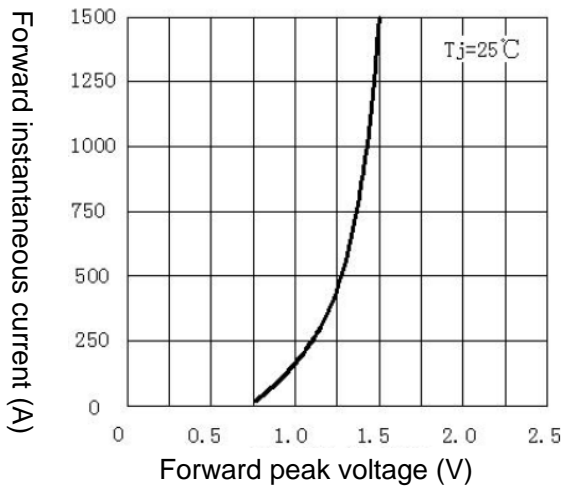
Surge current characteristics curve



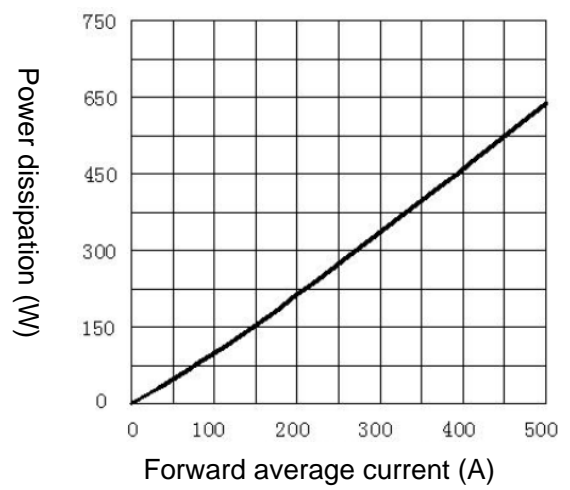
Thermal impedance characteristics curve



Forward characteristics curve



Power characteristics curve



Forward av. current decrease curve

