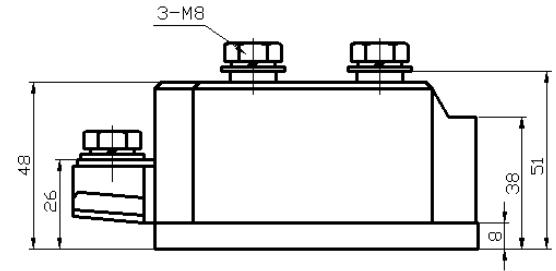


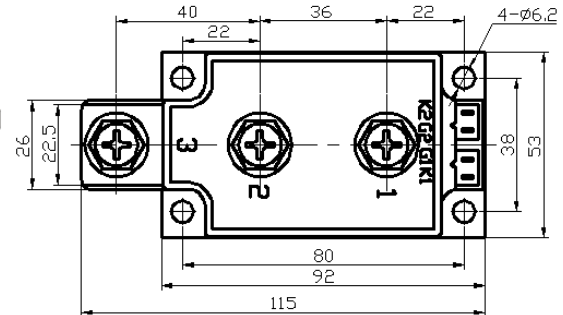
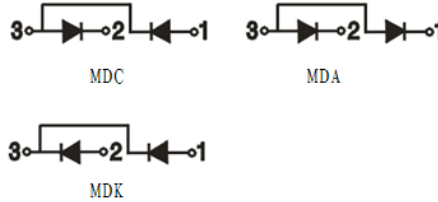
Feature

- International standard package
- Low forward voltage drop
- Isolation voltage 2500V ~
- Small size, light weight and easy assembly



Application

- AC/DC motor control
- Input rectifier of PWM converter
- DC device power supply



Maximum value

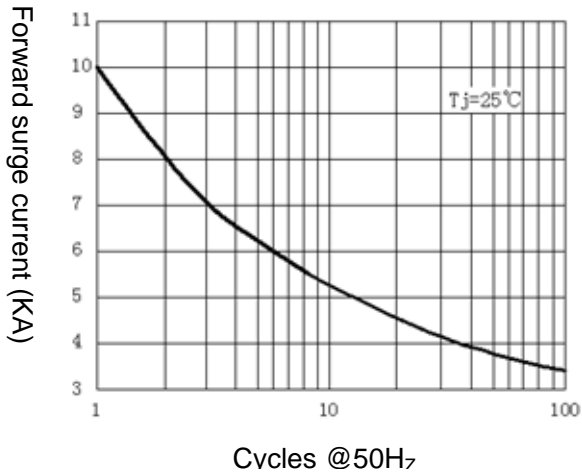
Symbol	Parameter	Rating				Unit
		MDC300-08 MDA300-08 MDK300-08	MDC300-12 MDA300-12 MDK300-12	MDC300-16 MDA300-16 MDK300-16	MDC300-18 MDA300-18 MDK300-18	
V_{RRM}	Reverse repetitive peak voltage	800	1200	1600	1800	V
V_{RSM}	Reverse non-repetitive peak voltage	900	1300	1700	1900	V

Symbol	Item	Conditions	Ratings	Unit
$I_{F(AV)}$	Forward average current	Single side heat dissipation, 180°sine half wave, 50Hz, $T_C: 100^\circ\text{C}$	300	A
$I_{F(RMS)}$	Forward square root current	Single side heat dissipation, 180°sine half wave, 50Hz, $T_C: 100^\circ\text{C}$	471	A
I_{FSM}	Forward surge current	$t=10\text{ms}$, 50Hz, Sin, $T_j=25^\circ\text{C}$	10000	A
I^2t	I^2t value	$V_R = 0.6V_{RRM}$, $T_j=25^\circ\text{C}$	500000	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	$^\circ\text{C}$
M_d	Mounting torque(copper plate) M6		5	N·m
	Mounting torque(connection terminal) M8		9	N·m
W_t	Weight		900	g

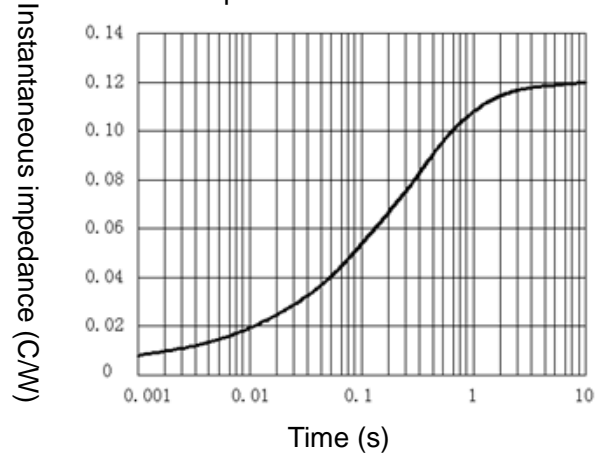
Electrical characteristics

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Reverse repetitive peak current	$V_R=V_{RRM}$, $T_j=150^\circ\text{C}$	20	mA
V_{FM}	Forward peak voltage	$I_{FM}=900\text{A}$, $T_j=25^\circ\text{C}$	1.5	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single side heat dissipation	0.12	$^\circ\text{C/W}$

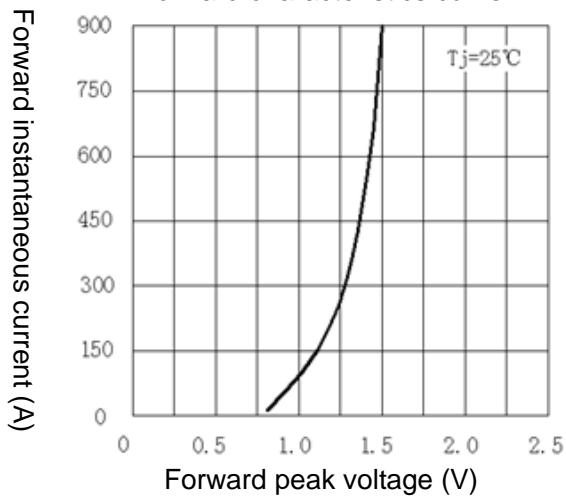
Surge current characteristics curve



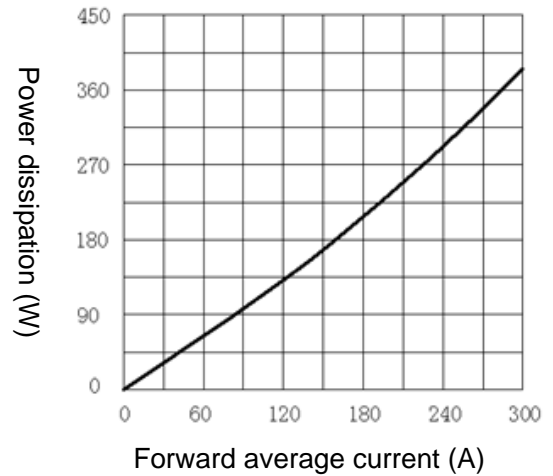
Thermal impedance characteristics curve



Forward characteristics curve



Power characteristics curve



Forward av. current decrease curve

