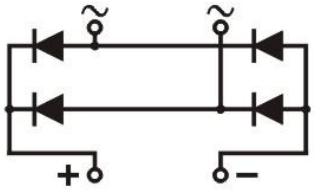
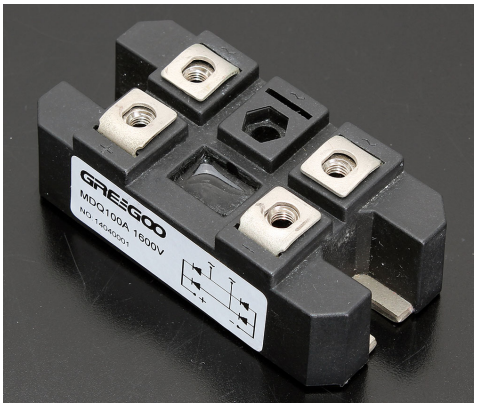
Feature

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





Application

- DC power suppliers for apparatus device
- Input rectifying power supply for PWM converters
- Inverter welders

Maximum value

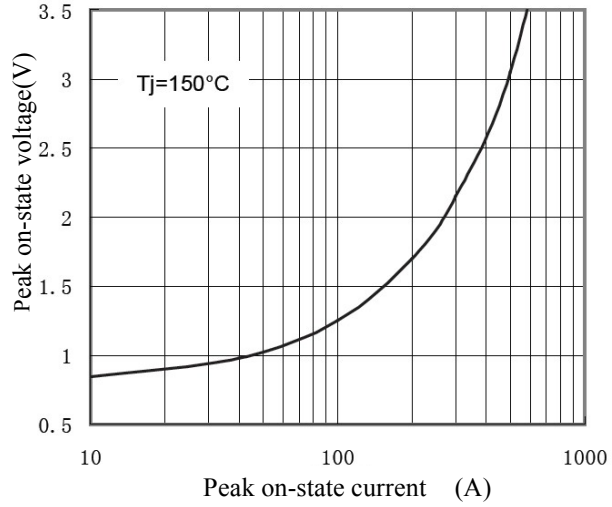
Symbol	Parameter	Rating		Unit
		MDQ100-12	MDQ100-16	
V_{RRM}	Peak reverse repetitive voltage	1200	1600	V
V_{RSM}	Peak reverse non-repetitive voltage	1300	1700	V

Symbol	Parameter	Test condition	Rating	Unit
I_O	Output DC current	Three-phase whole wave rectifying circuit T_C:100℃	100	A
I_{FSM}	Forward surge current	t=10ms,50HZ,sin,Tjm	1500	A
I^2t	I^2t value	V_R = 0.6V_{RRM}， Tjm	11400	A^2S
V_{ISO}	Isolation voltage	AC one min	2500	V
Tj	Operating junction temperature		-40 to +150	℃
Tjm	Rated junction temperature		150	℃
Tstg	Storage temperature		-40 to +125	℃
Md	Mounting torque（copper plate）M6		4	N·m
	Mounting torque（terminal） M6		4	N·m
W_t	weight		195	g

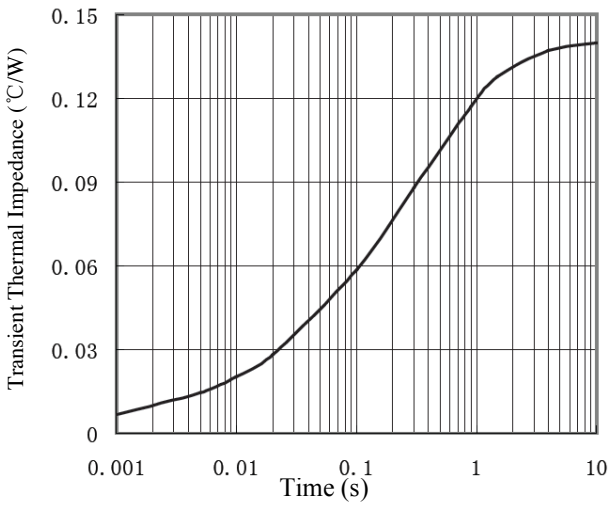
Electrical characteristics

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	Single-side heat dissipation, V_R=V_{RRM}, sine half wave,Tj=150℃	10	mA
V_{FM}	Peak forward voltage	I_{FM} =200A, Tj=25℃	1.2	V
Rth(j-c)	Thermal impedance（junction-case）	Single-side heat dissipation, sine half wave	0.14	℃/W

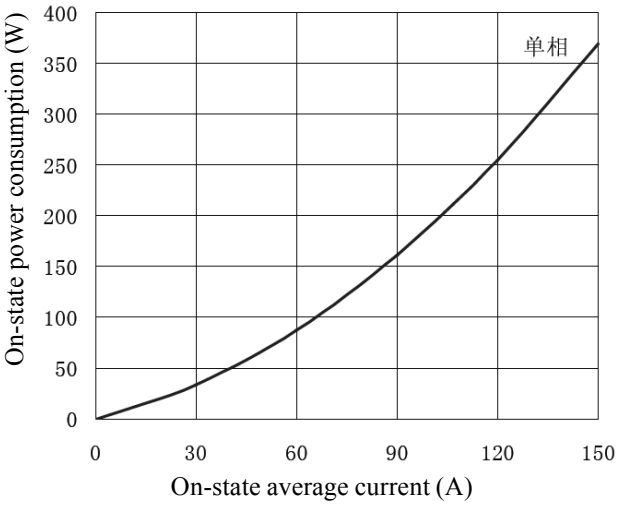
Forward current vs. Forward voltage



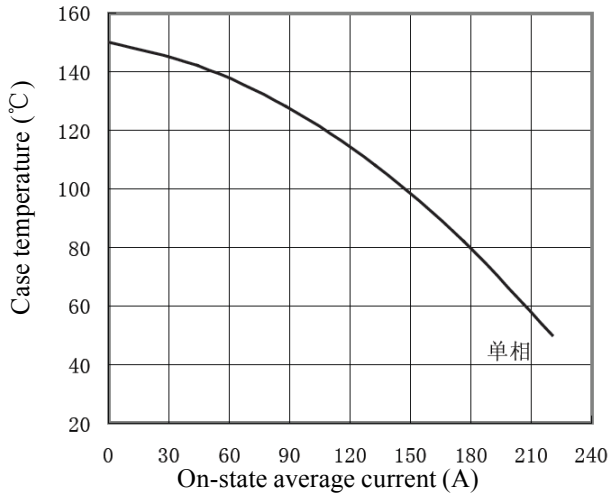
Thermal Impedance (junction to case)



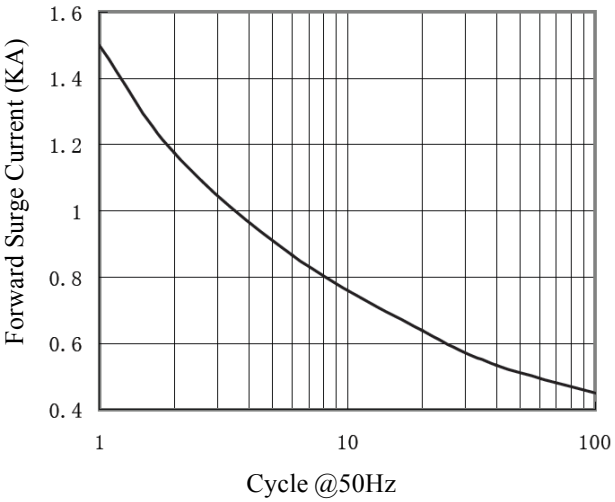
Power Consumption vs. Avergage Current



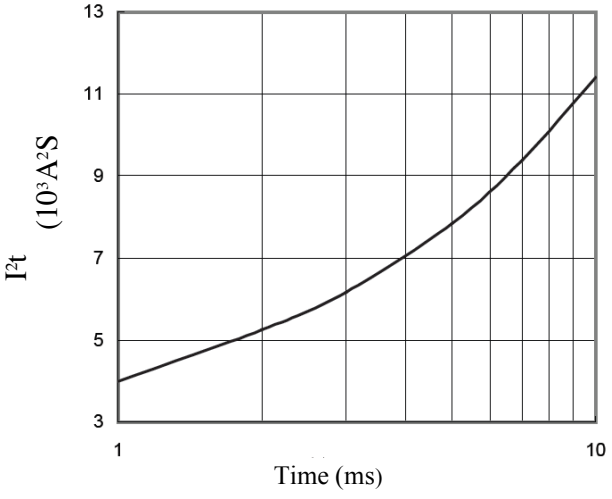
Case Temperature vs. O-state Average Current



Forward Surge Current vs. Cycle



I^2t Characteristics



Dimension