

MDC400 MDA400 MDK400 MD400 Diode Modules

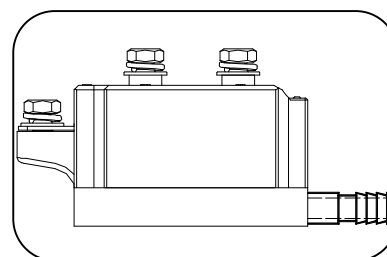
Features:

- n Isolated mounting base 2500V~
- n Pressure contact technology with
Increased power cycling capability
- n Space and weight savings

Typical Applications

- n AC/DC Motor drives
- n Various rectifiers
- n DC supply for PWM inverter

$I_{F(AV)}$	400A
V_{RRM}	600~1800V
I_{FSM}	10 A × 10³
I^2t	510A² S × 10³



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _J (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Single side water cooled, T _C =60°C	150			400	A
$I_{F(RMS)}$	RMS forward current		150			628	A
V_{RRM}	Repetitive peak reverse voltage	V_{RRM} tp=10ms $V_{RSM} = V_{RRM} + 200V$	150	600		1800	V
I_{RRM}	Repetitive peak current	at V_{RRM}	150			30	mA
I_{FSM}	Surge forward current	10ms half sine wave	150			10.0	KA
I^2t	I ² T for fusing coordination	$V_R = 0.6V_{RRM}$				510	A ² S × 10 ³
V_{FO}	Threshold voltage		150			0.75	V
r_F	Forward slop resistance					0.64	mΩ
V_{FM}	Peak forward voltage	$I_{FM} = 1200A$	25			1.65	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine; Single side cooled				0.160	°C /W
V_{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(max)		2500			V
F_m	Terminal connection torque (M8)				12		N·m
	Mounting torque (M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				1300		g
Outline	405F3						

Peak forward Voltage Vs. Peak forward Current

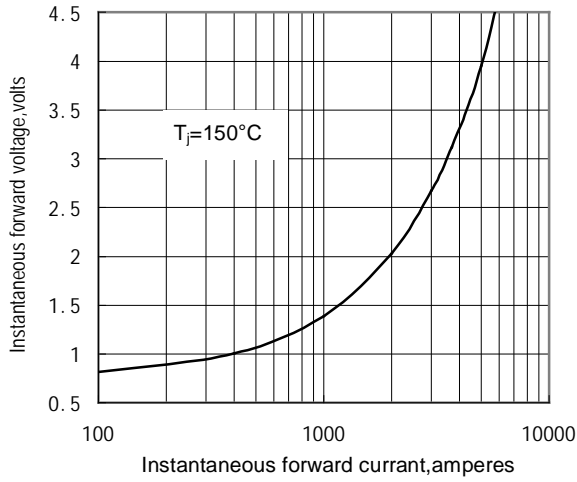


Fig.1

Max. junction To case Thermal Impedance Vs. Time

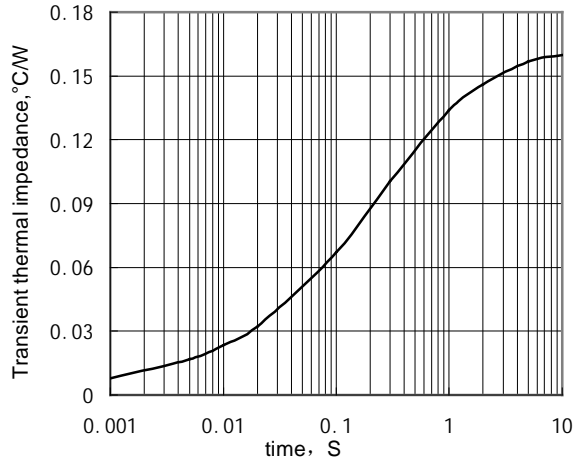


Fig.2

Max. Power Dissipation Vs. Mean forward Current

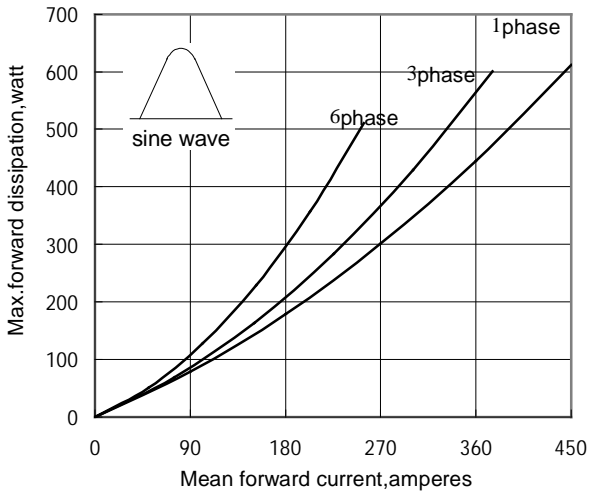


Fig.3

Max. case Temperature Vs. Mean forward Current

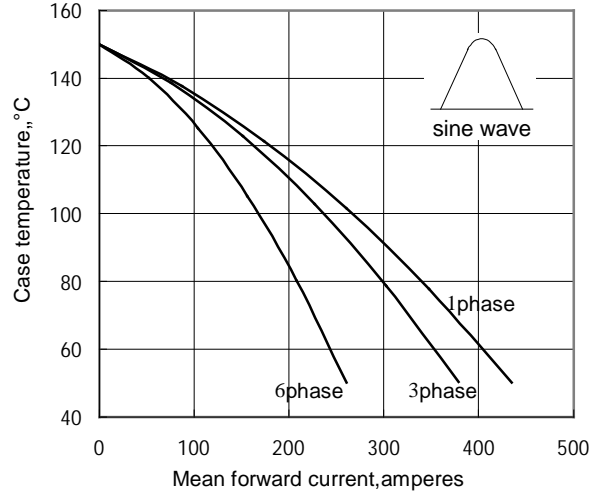


Fig.4

Max. Power Dissipation Vs. Mean forward Current

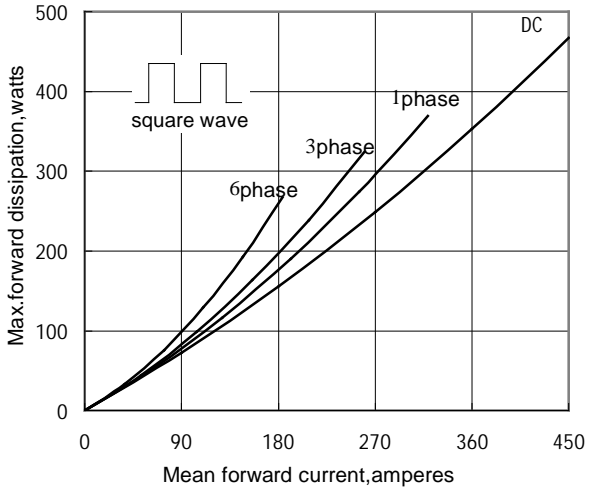


Fig.5

Max. case Temperature Vs. Mean forward Current

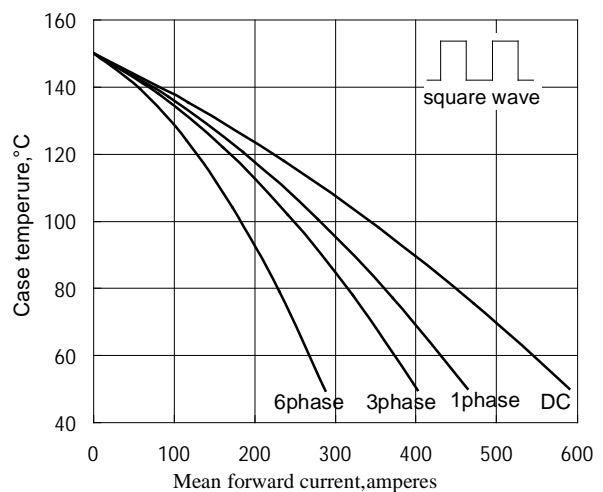


Fig.6

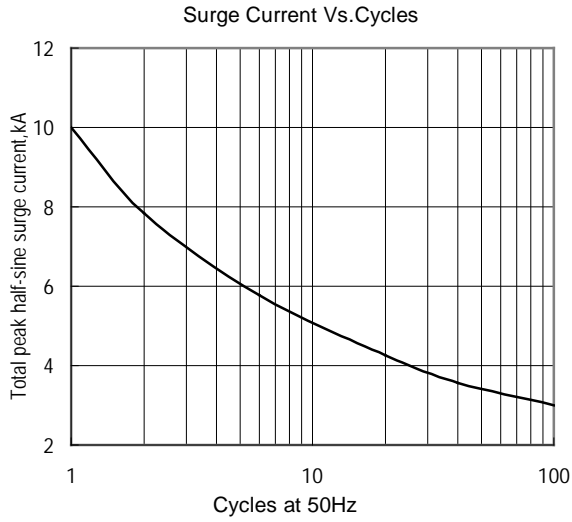


Fig.7

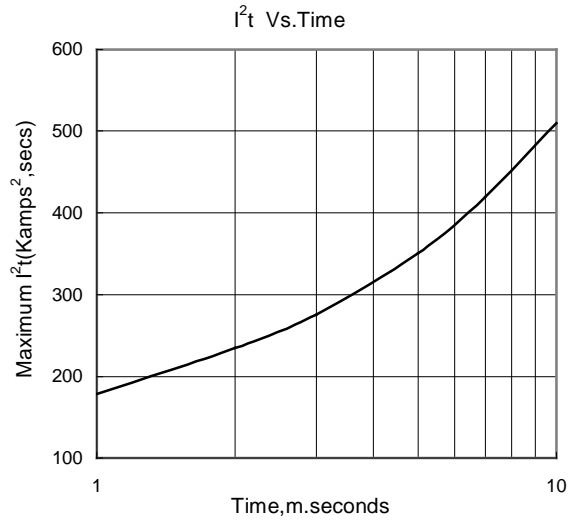
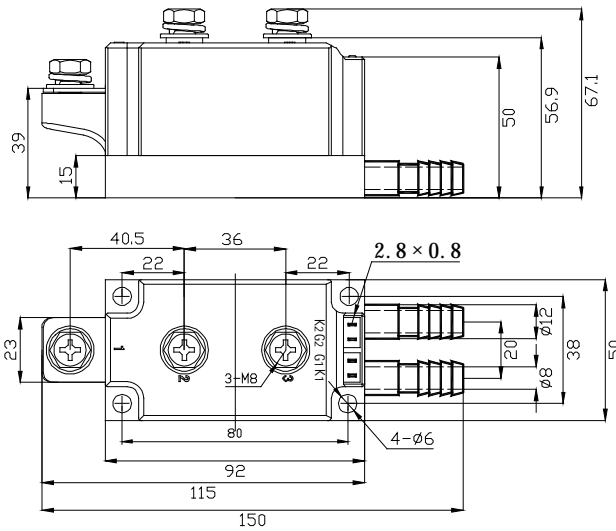


Fig.8

Outline:



405F3

