



### Features :

- Isolated mounting base 3000V~
- Pressure contact technology with increased power cycling capability

- Space and weight savings

### Typical Applications

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

$V_{RSM}$	$V_{RRM}$	Type & Outline
2100 V	2000 V	MDC300-20-413F3
2300 V	2200 V	MDC300-22-413F3
2600 V	2500 V	MDC300-25-413F3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Single side cooled, $T_c=100^{\circ}C$	150			300	A
$I_{F(RMS)}$	RMS forward current		150			471	A
$I_{RRM}$	Repetitive peak current	at $V_{RRM}$	150			20	mA
$I_{FSM}$	Surge forward current	10ms half sine wave	150			10	KA
$I^2t$	$I^2T$ for fusing coordination	$V_R=0.6V_{RRM}$				500	$A^2s \cdot 10^3$
$V_{FO}$	Threshold voltage		150			0.80	V
$r_F$	Forward slop resistance					0.50	m $\Omega$
$V_{FM}$	Peak forward voltage	$I_{FM}=900A$	25			1.45	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine Single side cooled				0.120	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heatsink	At 180° sine Single side cooled				0.04	$^{\circ}C/W$
$V_{iso}$	Isolation voltage	50Hz, R.M.S, t=1min, $I_{iso}: 1mA(max)$		3000			V
$F_m$	Terminal connection torque(M8)				12		N·m
	Mounting torque(M6)				6		N·m
$T_{vj}$	junction temperature			-40		150	$^{\circ}C$
$T_{stg}$	Stored temperature			-40		125	$^{\circ}C$
$W_t$	Weight				806		g
Outline	413F3						

Peak forward Voltage Vs. Peak forward Current

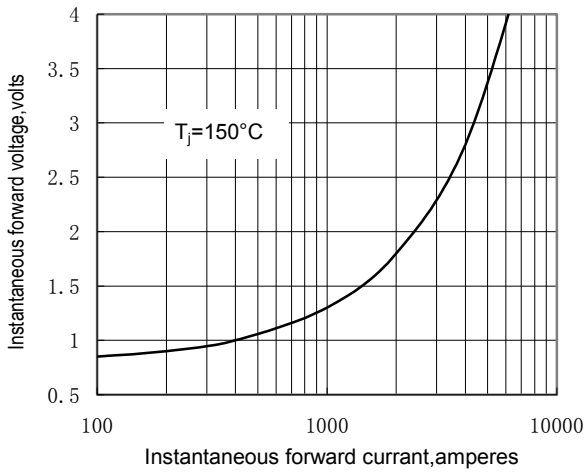


Fig.1

Max. junction To case Thermal Impedance Vs. Time

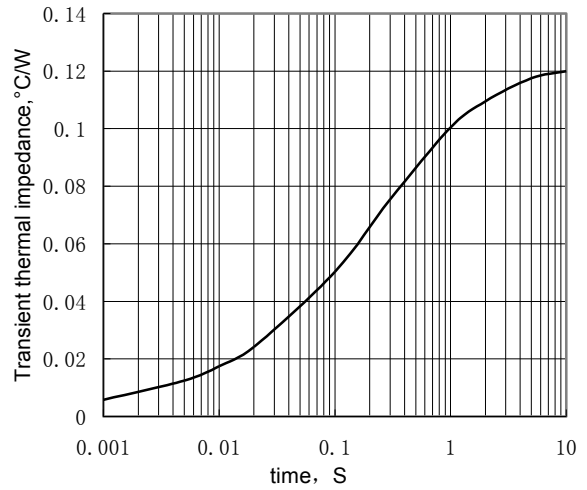


Fig.2

Max. Power Dissipation Vs. Mean forward Current

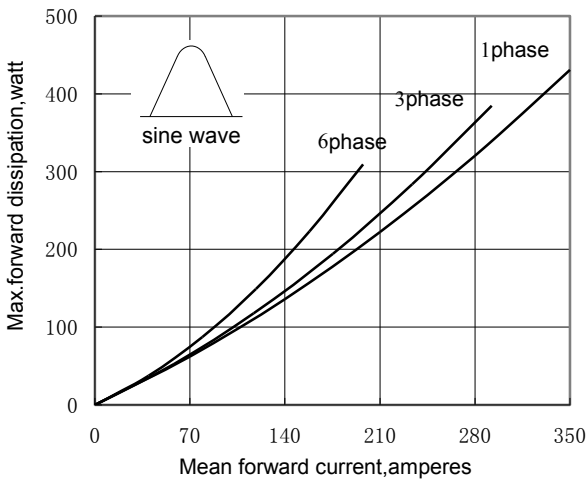


Fig.3

Max. case Temperature Vs. Mean forward Current

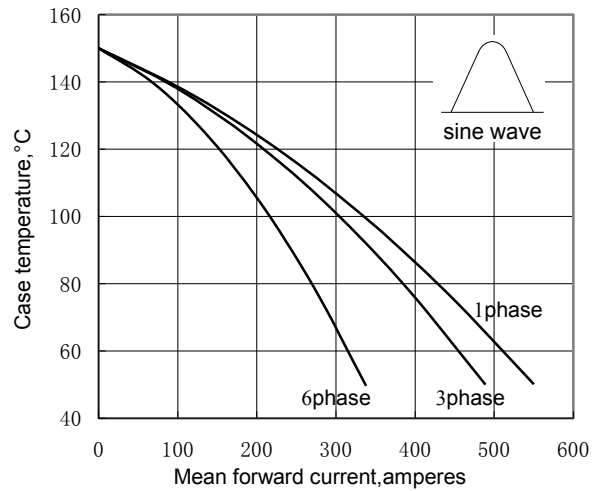


Fig.4

Max. Power Dissipation Vs. Mean forward Current

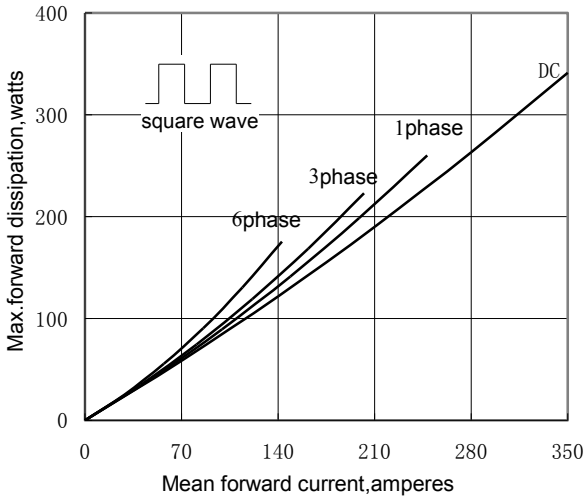


Fig.5

Max. case Temperature Vs. Mean forward Current

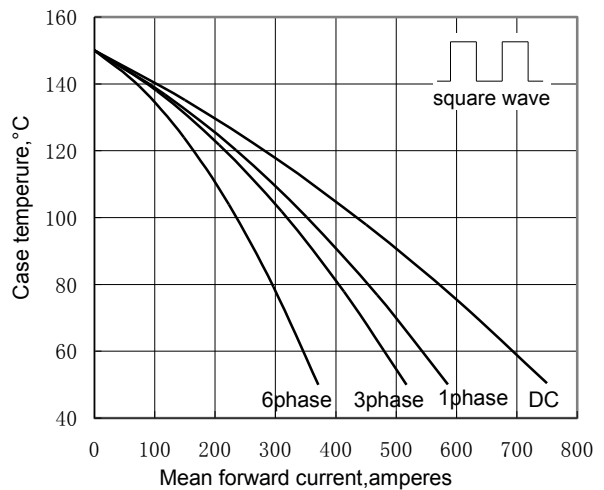
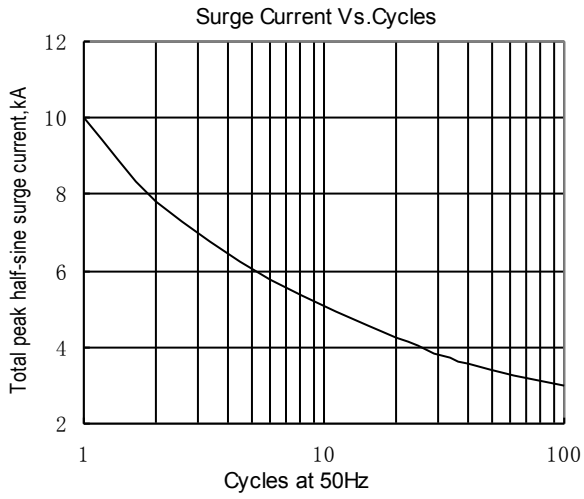
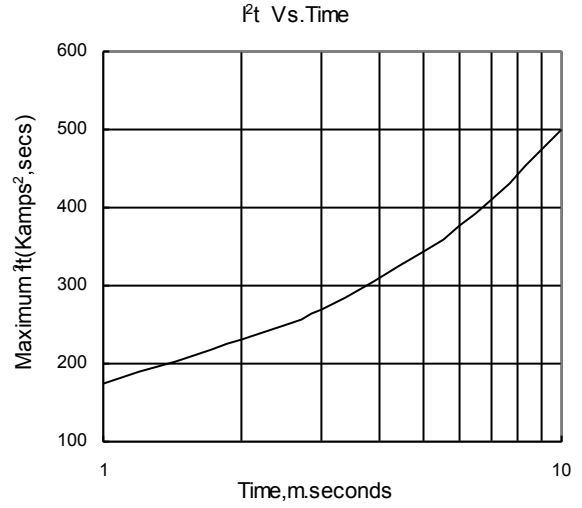


Fig.6

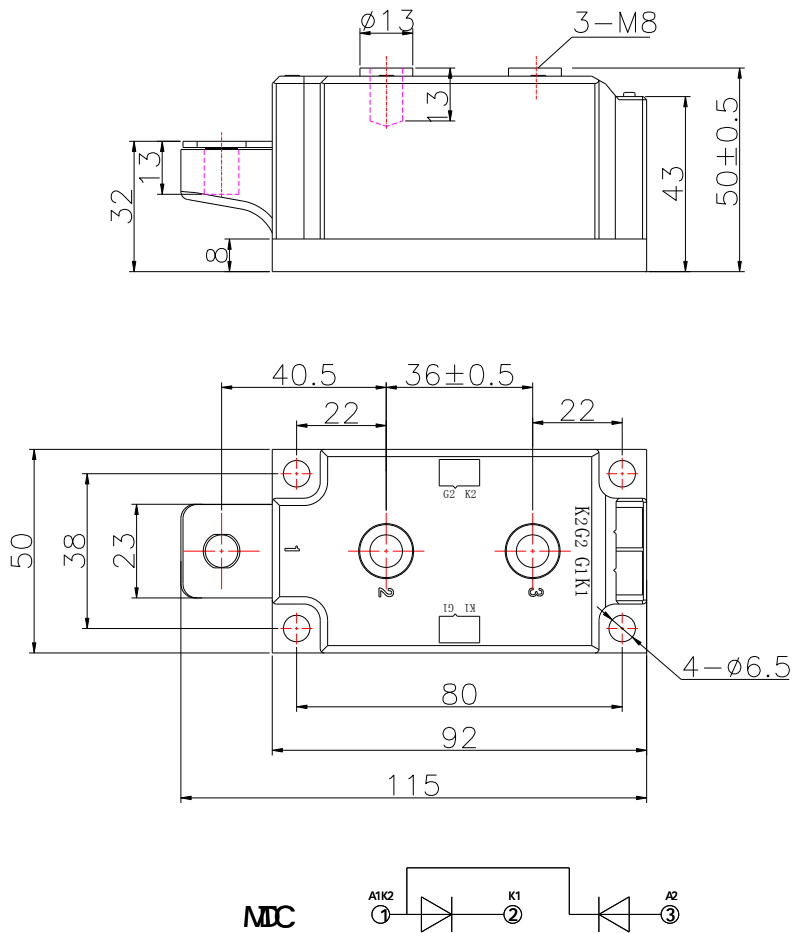


**Fig.7**



**Fig.8**

**Outline:**



**413F3**