TECHSEM

MDC40 MDA40 MDK40 MD40
Diode Modules

Features:

- Isolated mounting base 3000V~
- Pressure contact technology with Incrtased power cycling capability
- Space and weight savings

Typical Applications

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

$I_{F(AV)}$	**40A**
V_{RRM}	**1900~2500V**
I_{FSM}	**1.0 A×10³**
I^2t	**5.0 A² 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 cooled,T_C=100°C	150			40	A
$I_{F(RMS)}$	RMS forward current		150			63	A
V_{RRM}	Repetitive peak reverse voltage	V_{RRM} tp=10ms V_{RSM}= V_{RRM}+100V	150	1900		2500	V
I_{RRM}	Repetitive peak current	at V_{RRM}	150			8	mA
I_{FSM}	Surge forward current	10ms half sine wave V_R=0.6V_{RRM}	150			1.0	KA
I^2t	I^2T for fusing coordination					5.0	A^2s*10^3
V_{FO}	Threshold voltage		150			0.85	V
r_F	Forward slop resistance					4.50	mΩ
V_{FM}	Peak forward voltage	I_{FM}=120A	25			1.59	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180^0 sine, Single side cooled				0.90	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	At 180^0 sine, Single side cooled				0.2	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(max)		3000			V
F_m	Terminal connection torque(M5)				4		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				115		g
Outline	215F3/223F3						

Peak forward Voltage Vs.Peak forward Current

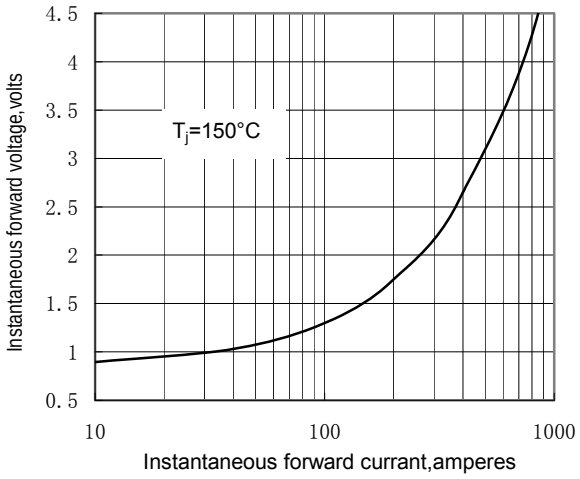


Fig.1

Max. junction To case Thermai Impedance Vs.Time

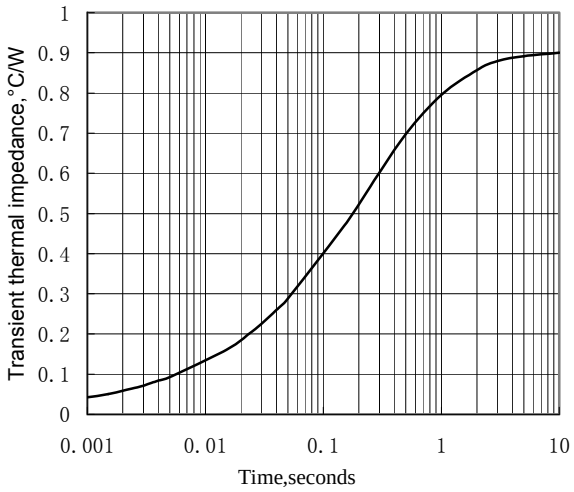


Fig.2

Max. Power Dissipation Vs.Mean forward Current

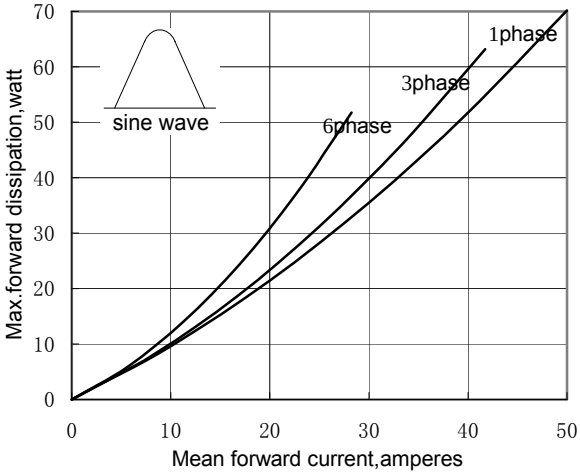


Fig.3

Max. case Temperature Vs.Mean forward Current

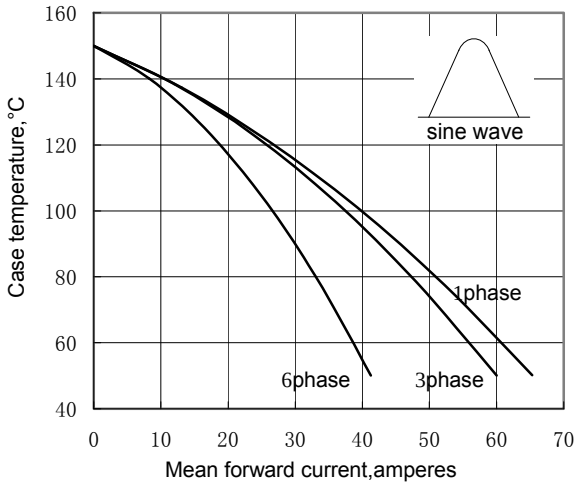


Fig.4

Max. Power Dissipation Vs.Mean forward Current

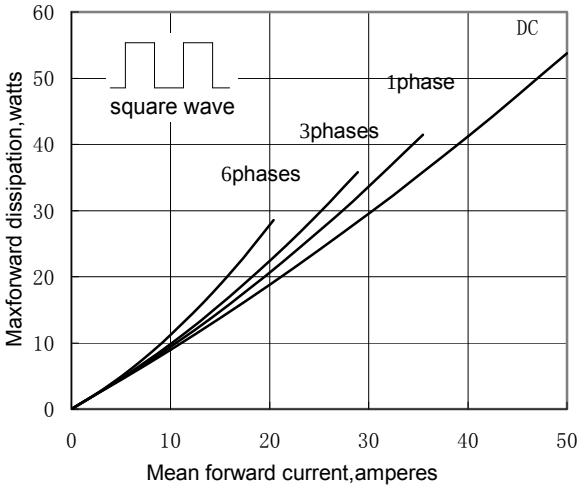


Fig.5

Max. case Temperature Vs.Mean forward Current

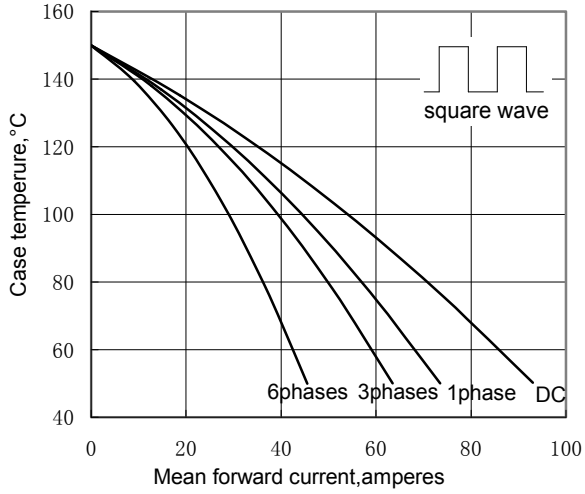


Fig.6

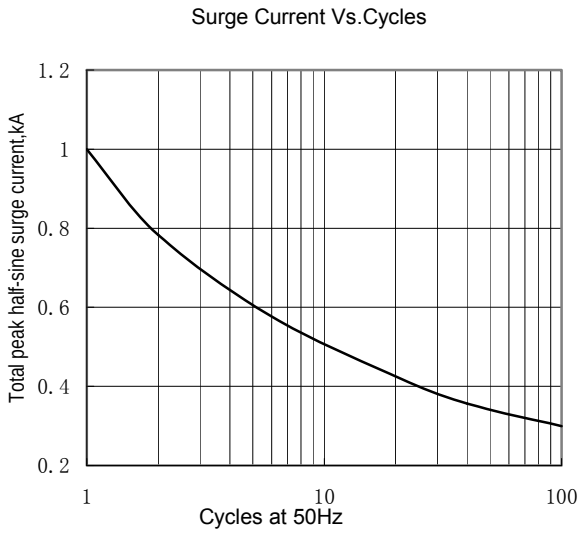


Fig.7

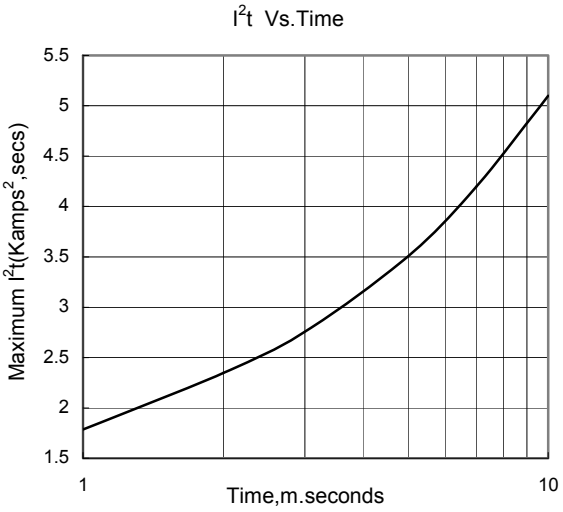
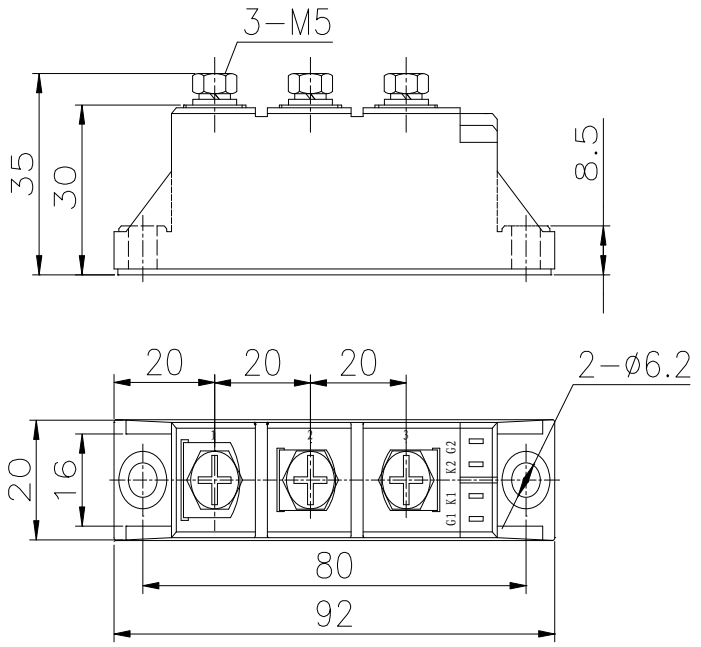


Fig.8

Outline:



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