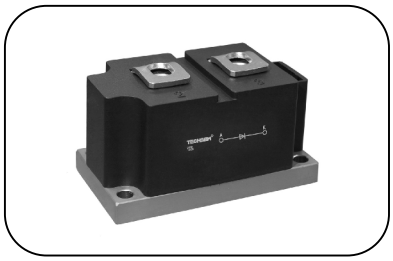
TECHSEM

MD600
Diode Modules



Features：

- **n** Isolated mounting base 3000V~
- **n** Pressure contact technology with Increased power cycling capability
- **n** Space and weight saving

Typical Applications

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

V_{RSM}	V_{RRM}	Type & Outline
900V	800V	MD600-08-433F2
1100V	1000V	MD600-10-433F2
1300V	1200V	MD600-12-433F2
1500V	1400V	MD600-14-433F2
1700V	1600V	MD600-16-433F2
1900V	1800V	MD600-18--433F2

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			500	A
$I_{F\ (RMS)}$	RMS forward current		150			785	A
V_{RRM}	Repetitive peak reverse voltage	V_{RRM} tp=10ms V_{RSM}= V_{RRM}+100V	150	600		1800	V
I_{RRM}	Repetitive peak current	at V_{RRM}	150			45	mA
I_{FSM}	Surge forward current	10ms half sine wave V_R=0.6V_{RRM}	150			19.0	KA
I^2t	I^2T for fusing coordination					1805	A^2s*10^3
V_{FO}	Threshold voltage		150			0.75	V
r_F	Forward slop resistance					0.28	mΩ
V_{FM}	Peak forward voltage	I_{FM}=1800A	25			1.50	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180°sine, Single side cooled per chip				0.065	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	At 180° sine, Single side cooled per chip				0.024	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(max)		3000			V
F_m	Terminal connection torque(M10)				12.0		N·m
	Mounting torque(M6)				6.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				765		g
Outline	433F2						

Peak forward Voltage Vs.Peak forward Current

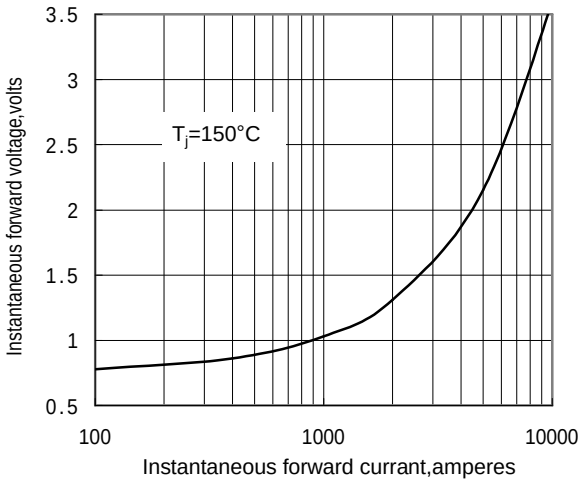


Fig.1

Max. junction To case Thermai Impedance Vs.Time

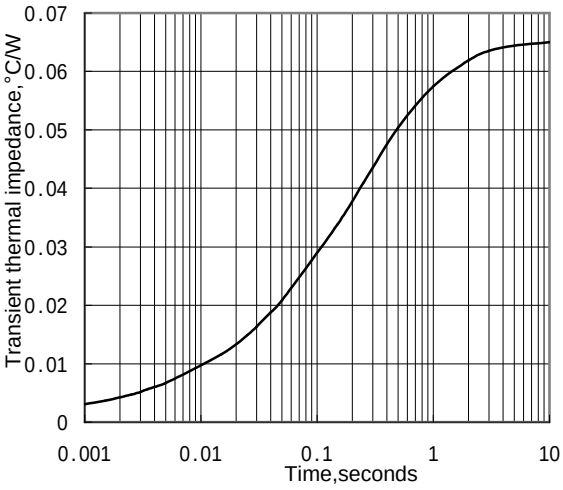


Fig.2

Max. Power Dissipation Vs.Mean forward Current

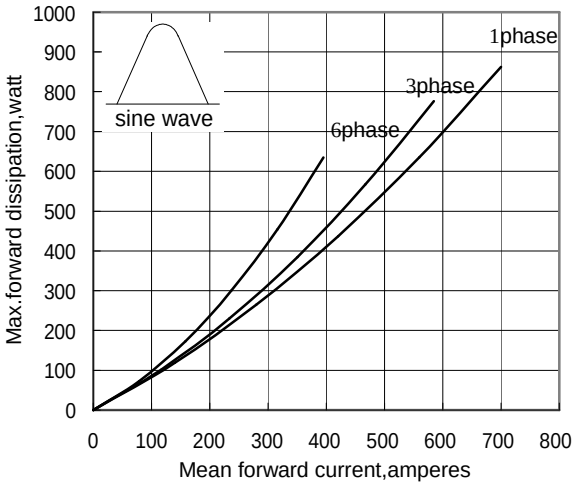


Fig.3

Max. case Temperature Vs.Mean forward Current

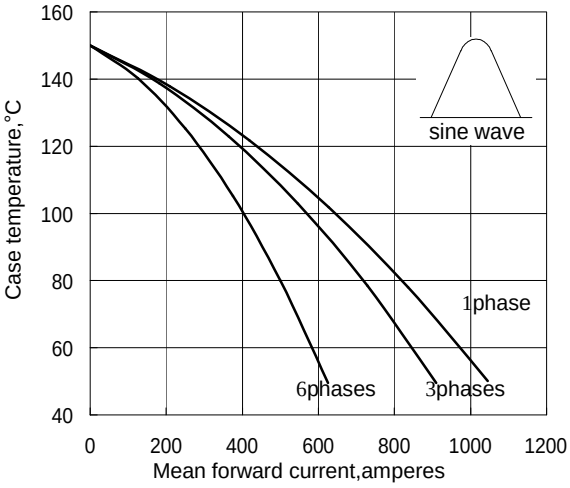


Fig.4

Max. Power Dissipation Vs.Mean forward Current

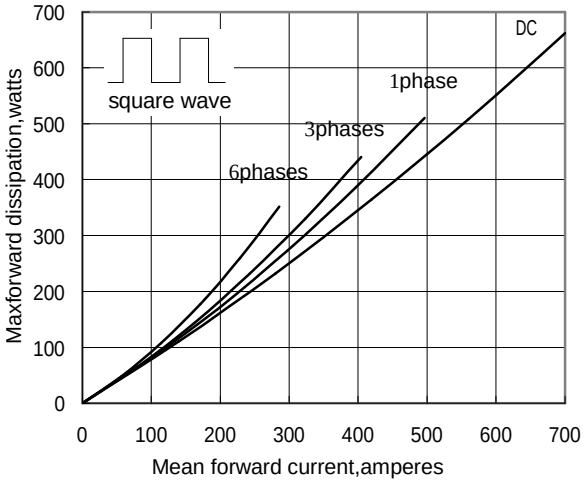


Fig.5

Max. case Temperature Vs.Mean forward Current

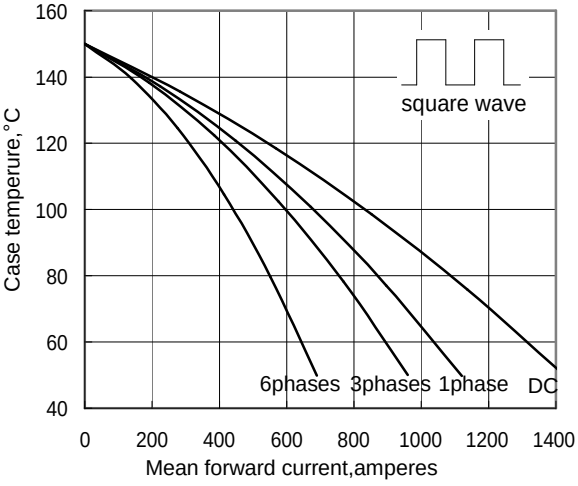


Fig.6

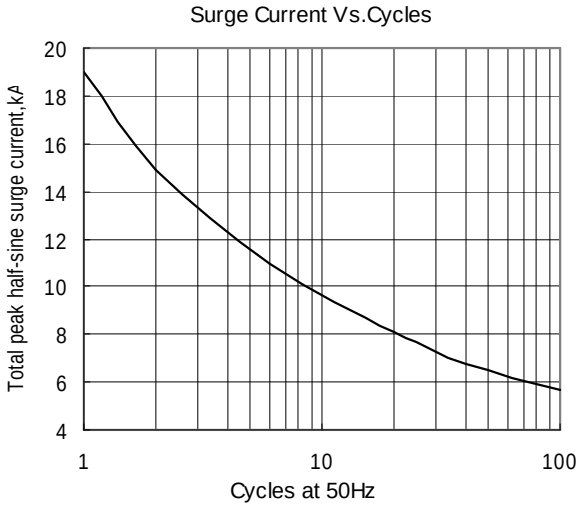


Fig.7

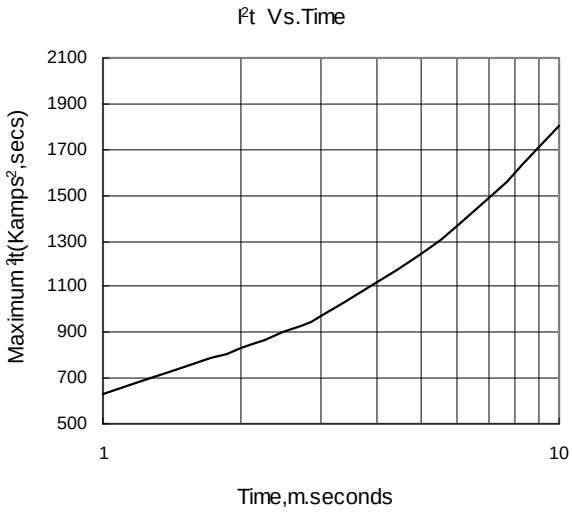
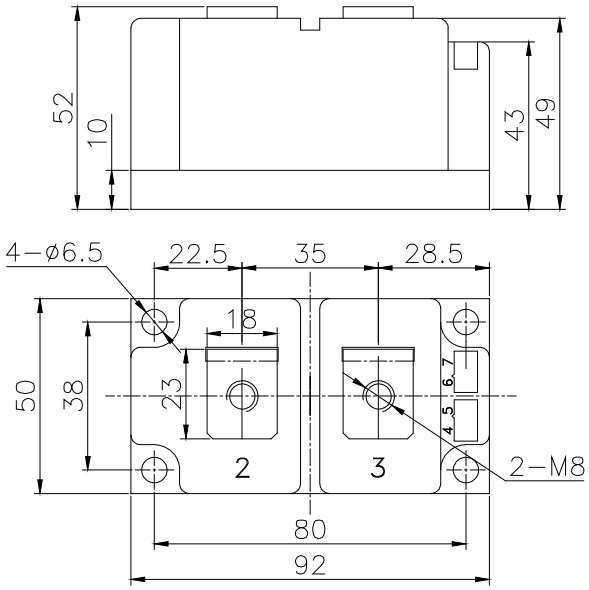


Fig.8

Outline:



433F2