**Features:**

- n Isolated mounting base 4000V~
- n Pressure contact technology with Increased power cycling capability
- n Space and weight saving

Typical Applications

- n Various rectifiers
- n DC supply for PWM inverter

V_{RRM}	Type & Outline
3600V	MD450-36-417F2
3800V	MD450-38-417F2
4000V	MD450-40-417F2
4200V	MD450-42-417F2
4400V	MD450-44-417F2

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}\text{C})$	VALUE			UNIT
				Min	Type	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Single side cooled, $T_c=100^{\circ}\text{C}$	150			450	A
$I_{F(RMS)}$	RMS forward current					707	A
I_{RRM}	Repetitive peak current	at V_{RRM}	150			50	mA
I_{FSM}	Surge forward current	$V_R=60\%V_{RRM}$, $t=10\text{ms}$ half sine	150			12.0	kA
I^2t	I^2t for fusing coordination					720	$10^3\text{A}^2\text{s}$
V_{FO}	Threshold voltage		150			0.84	V
r_F	Forward slope resistance					0.58	m Ω
V_{FM}	Peak forward voltage	$I_{FM}=1200\text{A}$	25			1.84	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled per chip				0.075	$^{\circ}\text{C}/\text{W}$
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled per chip				0.024	$^{\circ}\text{C}/\text{W}$
V_{iso}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}$, $I_{iso}:1\text{mA}(\text{MAX})$		4000			V
F_m	Terminal connection torque(M10)			10		12	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T_{vj}	Junction temperature			-40		150	$^{\circ}\text{C}$
T_{stg}	Stored temperature			-40		125	$^{\circ}\text{C}$
W_t	Weight				770		g
Outline	417F2						

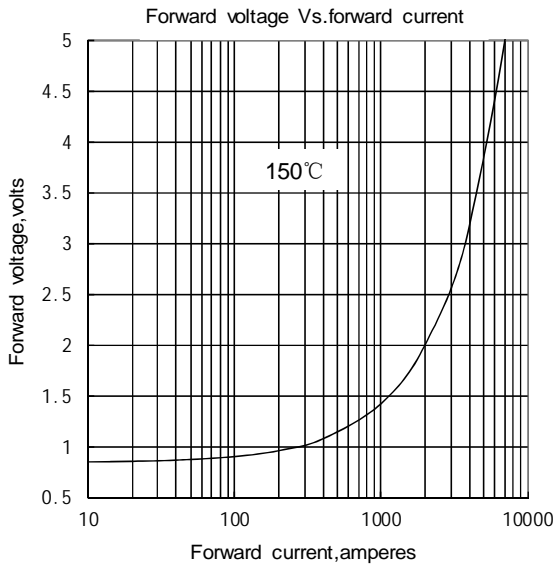


Fig.1

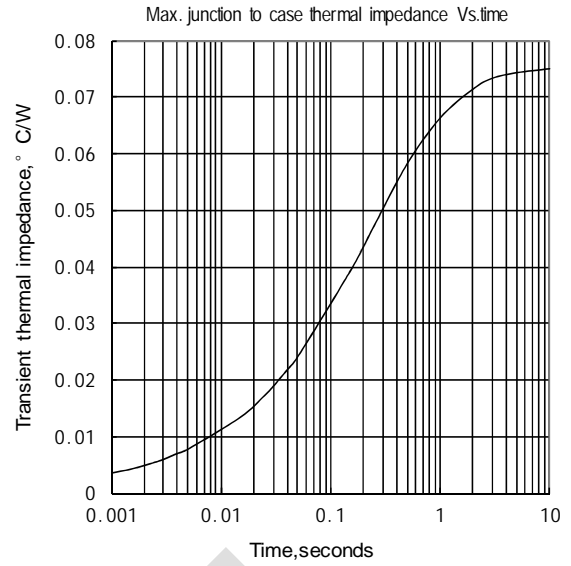


Fig.2

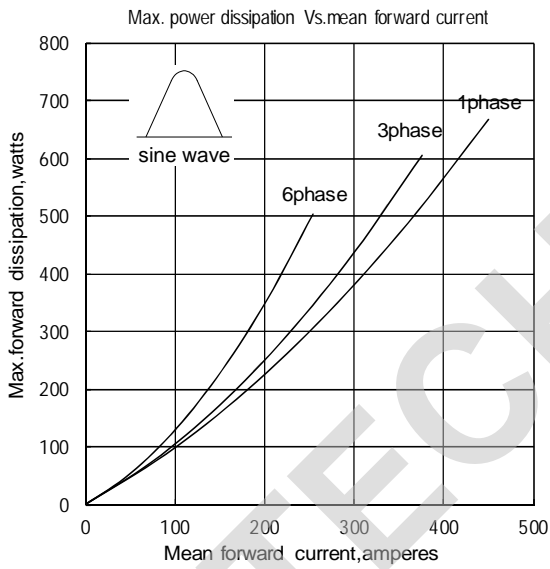


Fig.3

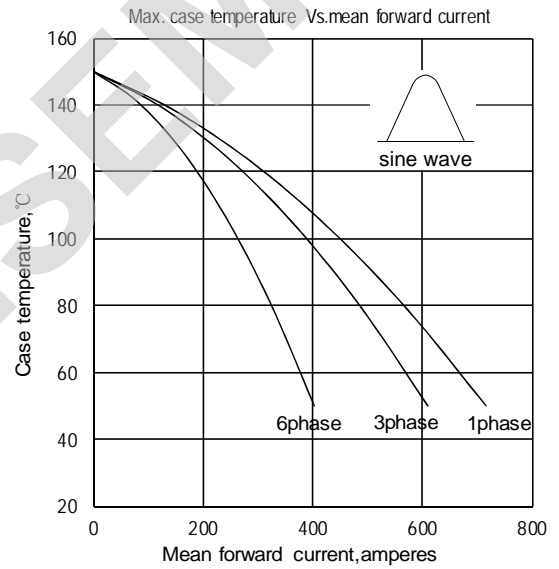


Fig.4

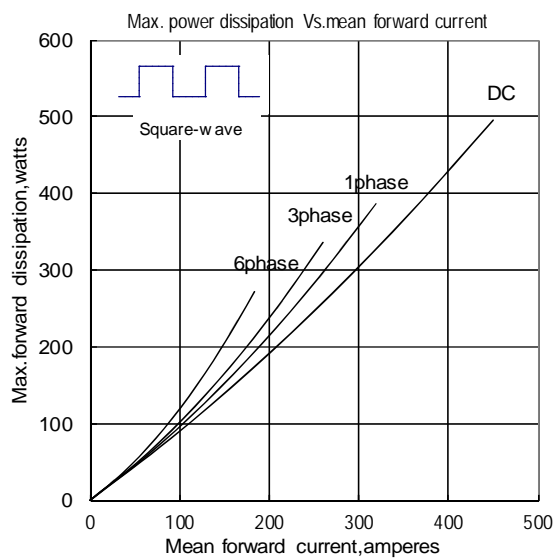


Fig.5

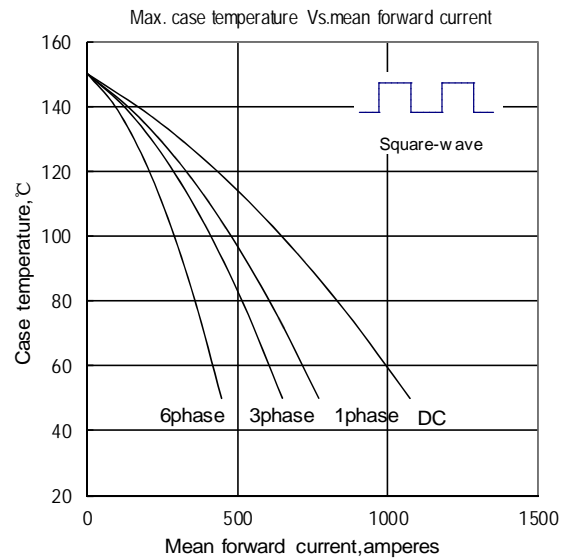


Fig.6

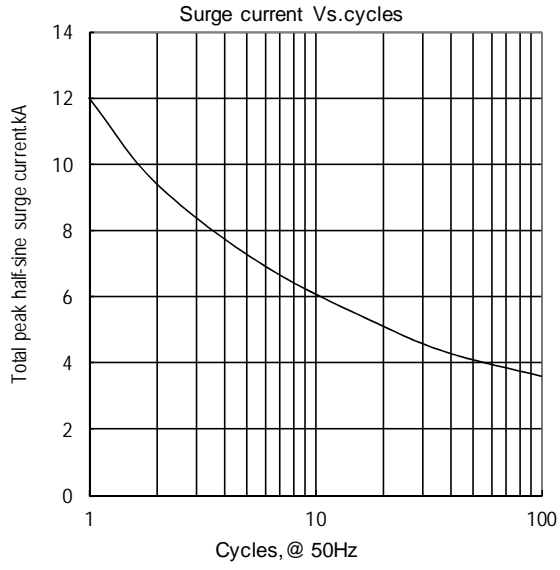


Fig.7

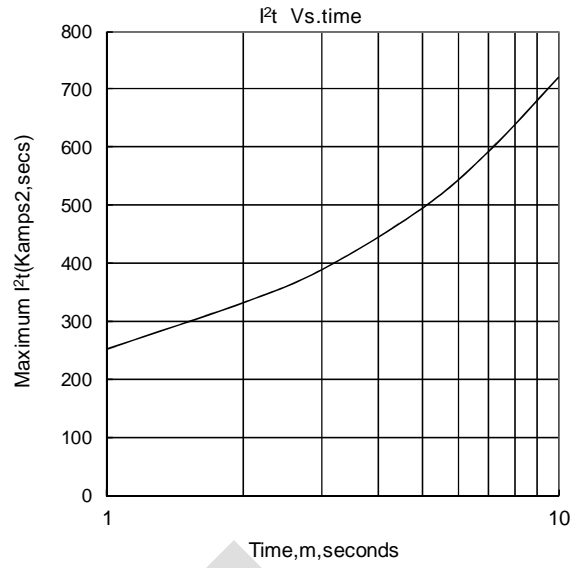
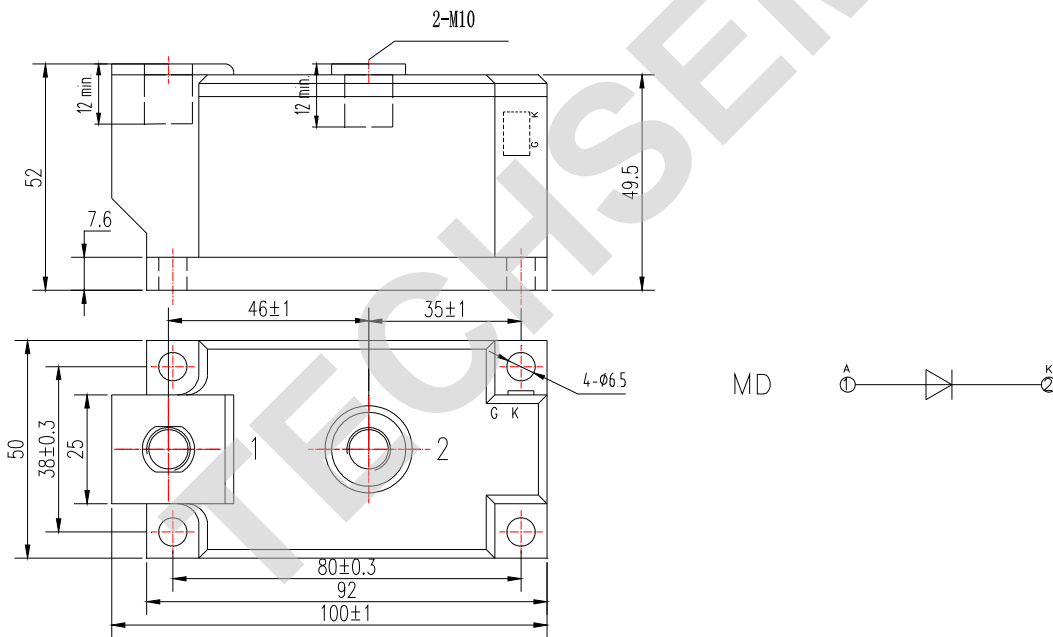


Fig.8

Outline:



Unmarked dimensional tolerance: ±0.5mm