

**Features:**

- n Isolated mounting base 3000V~
- 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
2000V	MDx90-20-223F3
2200V	MDx90-22-223F3
2500V	MDx90-25-223F3
2500V	MD90-25-223F3G

MDx stands for any type of **MDC**, **MDA**, **MDK**

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			90	A
$I_{F(RMS)}$	RMS forward current					141	A
I_{RRM}	Repetitive peak current	at V_{RRM}	150			8	mA
I_{FSM}	Surge forward current	$V_R=60\%V_{RRM}$, $t=10\text{ms}$ half sine	150			2.3	kA
I^2t	I^2t for fusing coordination					26	$10^3\text{A}^2\text{s}$
V_{FO}	Threshold voltage		150			0.85	V
r_F	Forward slope resistance					1.88	mΩ
V_{FM}	Peak forward voltage	$I_{FM}=270\text{A}$	25			1.43	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled per chip				0.45	$^{\circ}\text{C/W}$
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled per chip				0.20	$^{\circ}\text{C/W}$
V_{iso}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}$, $I_{iso}:1\text{mA}(\text{MAX})$		3000			V
F_m	Terminal connection torque(M5)			2.5		4.0	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				175		g
Outline	223F3						

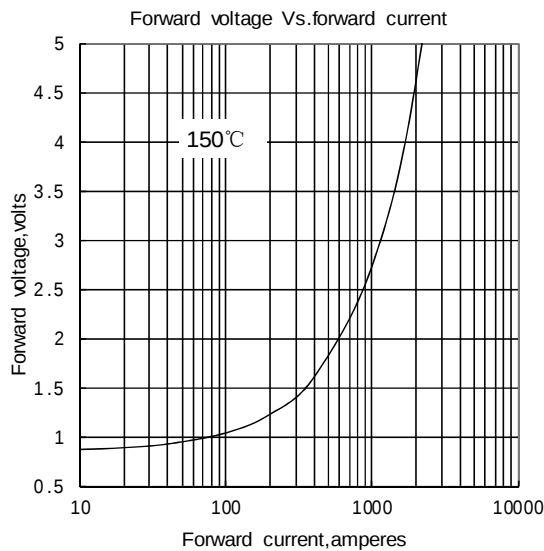


Fig.1

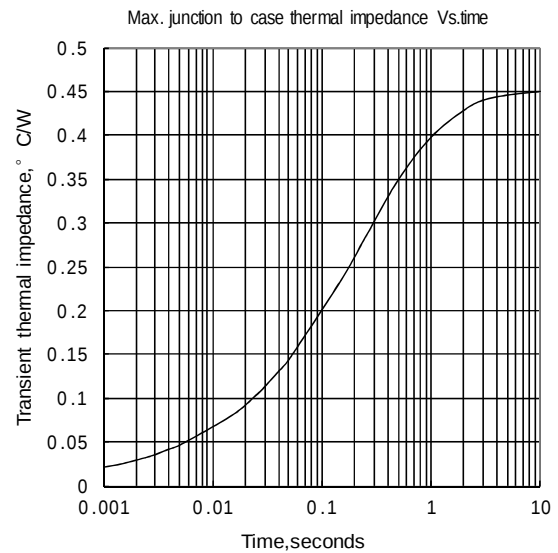


Fig.2

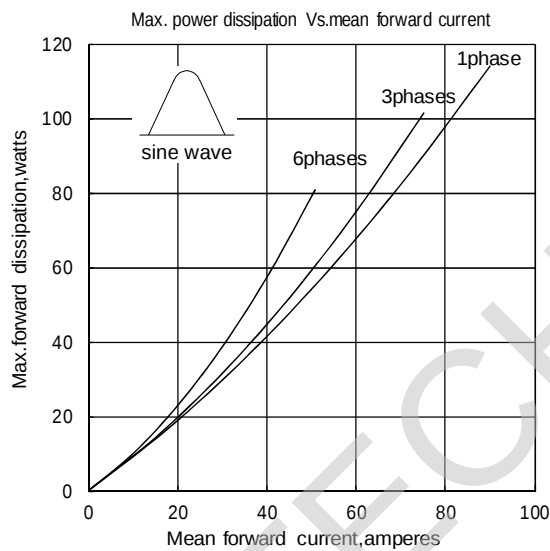


Fig.3

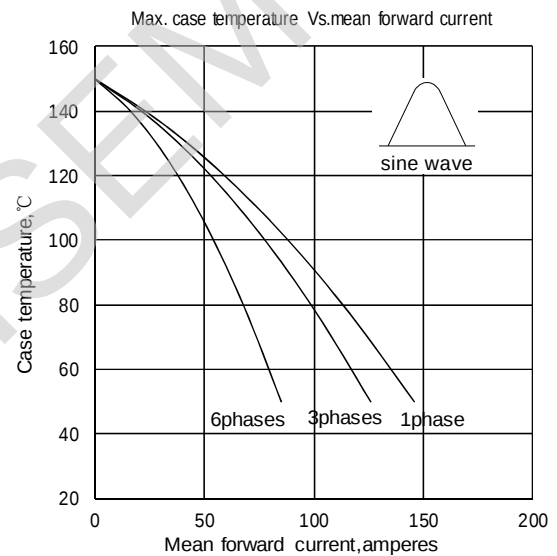


Fig.4

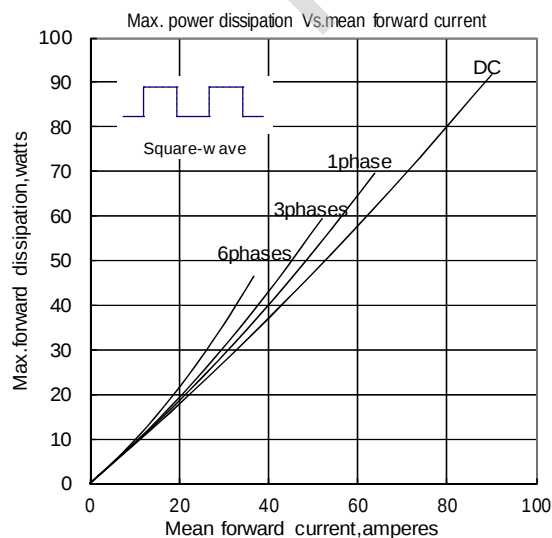


Fig.5

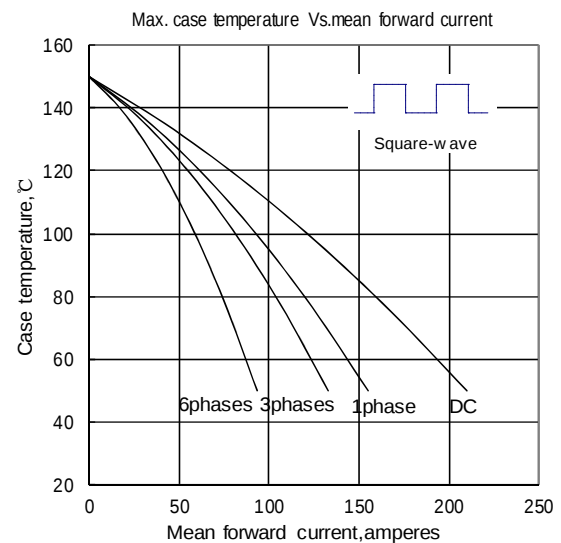


Fig.6

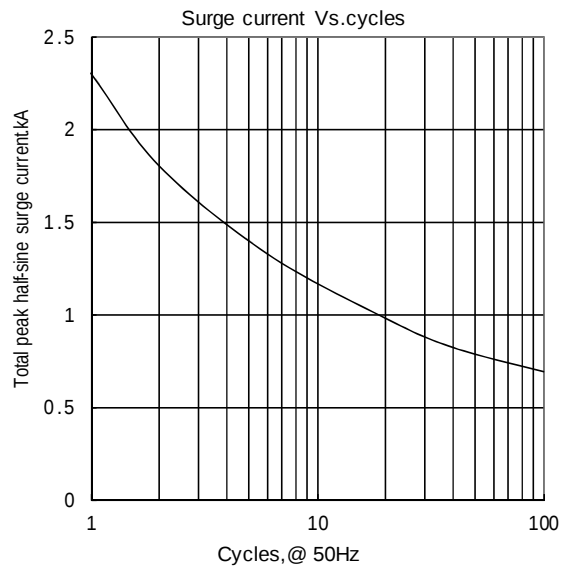


Fig.7

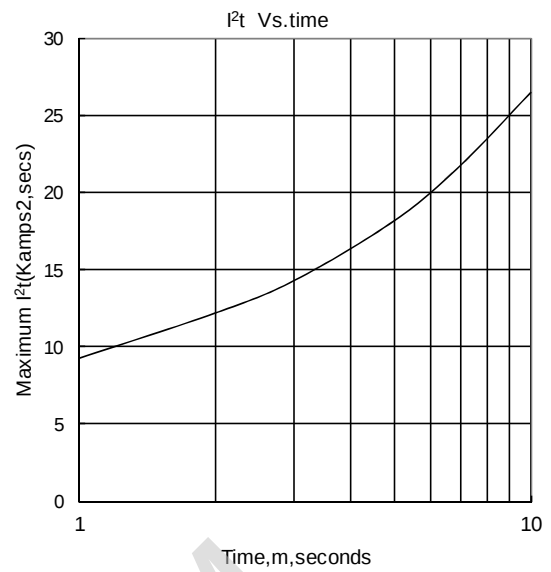
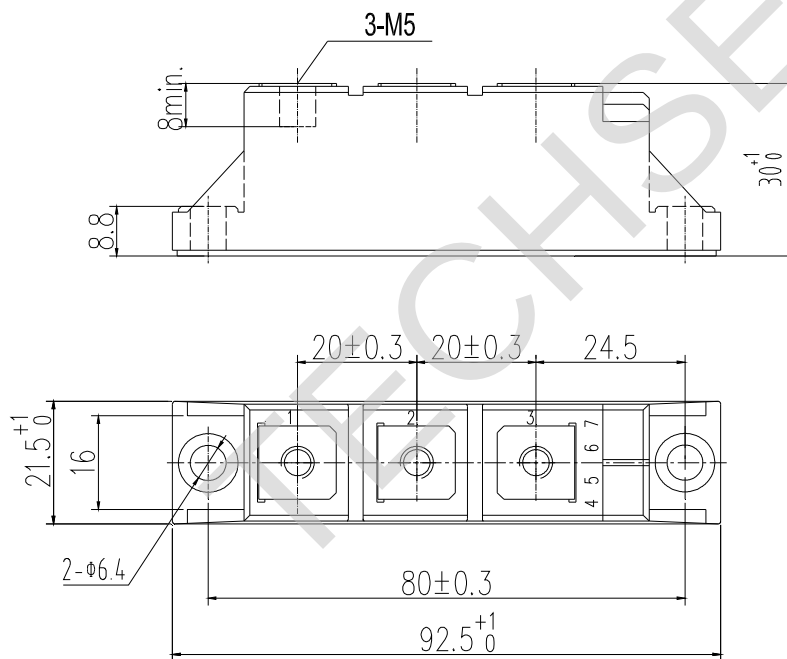


Fig.8

Outline:Unmarked dimensional tolerance: $\pm 0.5 \text{ mm}$ 