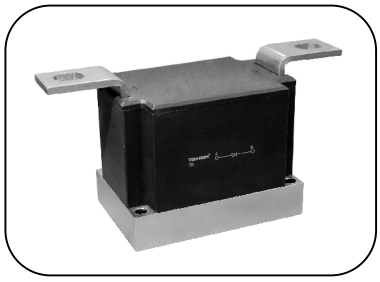


Features：

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

Typical Applications

- Various rectifiers
- DC supply for PWM inverter

V_{RRM}	Type & Outline
800V	MD1000-08-432F2
1000V	MD1000-10-432F2
1200V	MD1000-12-432F2
1400V	MD1000-14-432F2
1600V	MD1000-16-432F2
1800V	MD1000-18-432F2

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			1000	A
$I_{F(RMS)}$	RMS forward current					1570	A
I_{RRM}	Repetitive peak current	at V_{RRM}	150			50	mA
I_{FSM}	Surge forward current	V_R=60%V_{RRM}, t=10ms half sine	150			28	kA
I^2t	I^2t for fusing coordination					3920	10^3A^2s
V_{FO}	Threshold voltage		150			0.82	V
r_F	Forward slope resistance					0.10	mΩ
V_{FM}	Peak forward voltage	I_{FM}=3000A	25			1.30	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled per chip				0.042	°C/W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled per chip				0.020	°C/W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3000			V
F_m	Terminal connection torque(M12)			12		14	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T_{vj}	Junction temperature			-40		150	°C
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				2700		g
Outline	432F2						

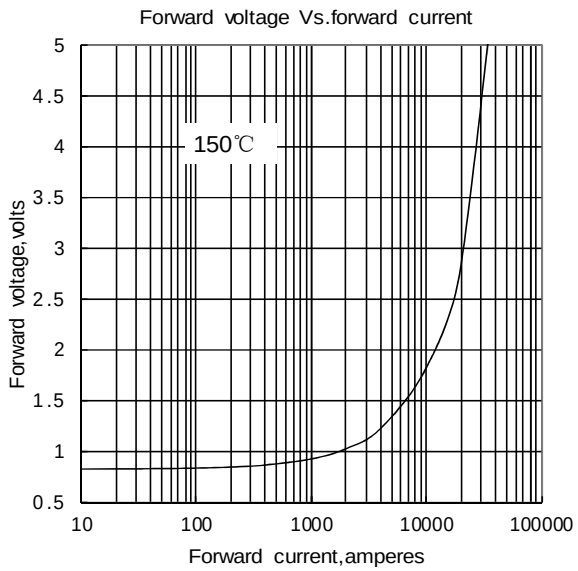


Fig.1

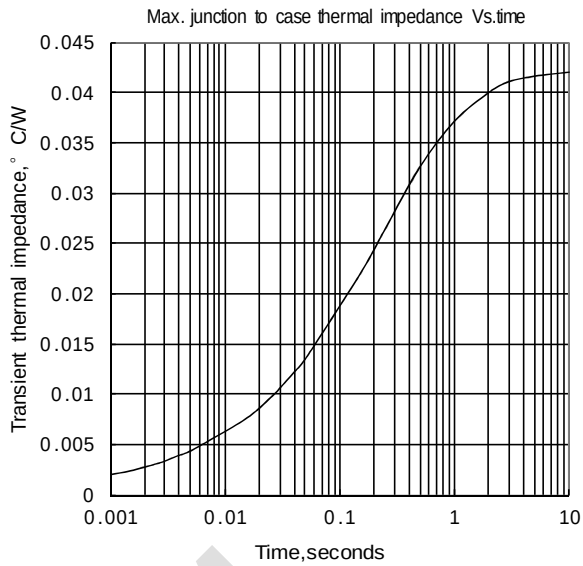


Fig.2

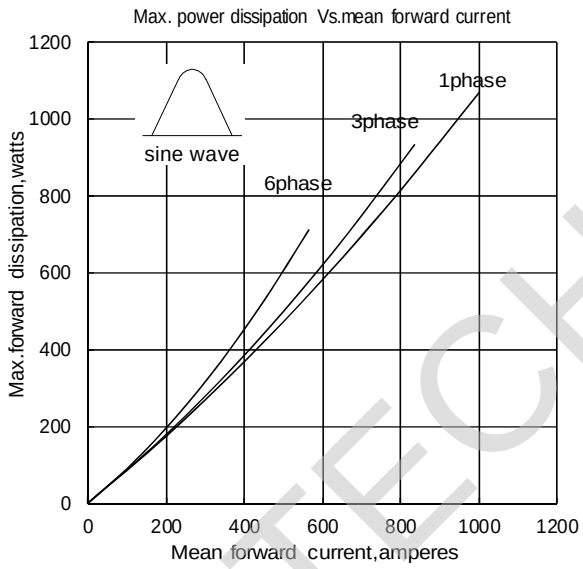


Fig.3

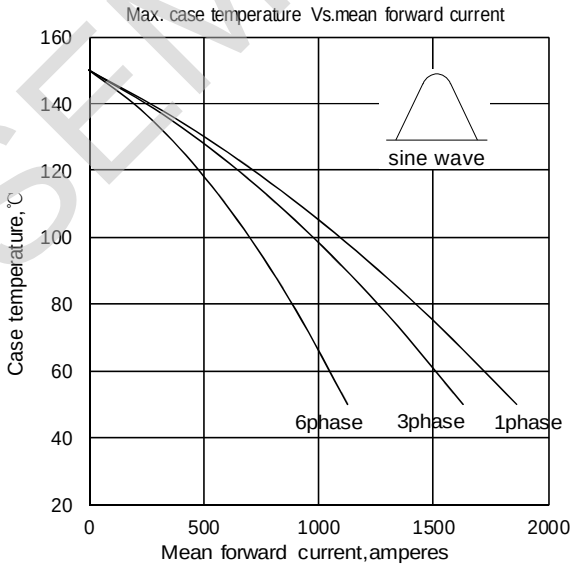


Fig.4

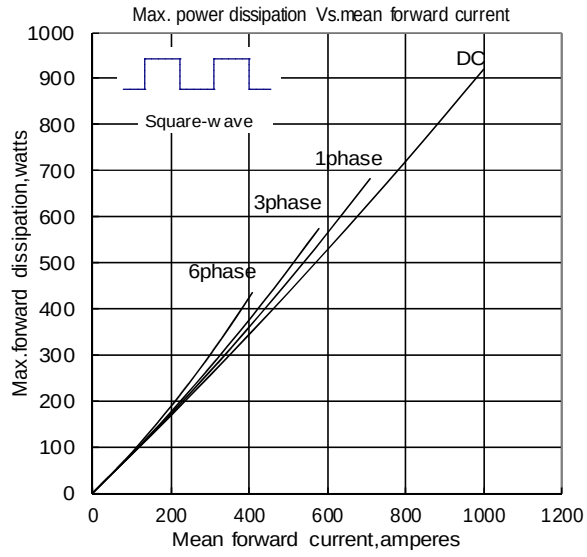


Fig.5

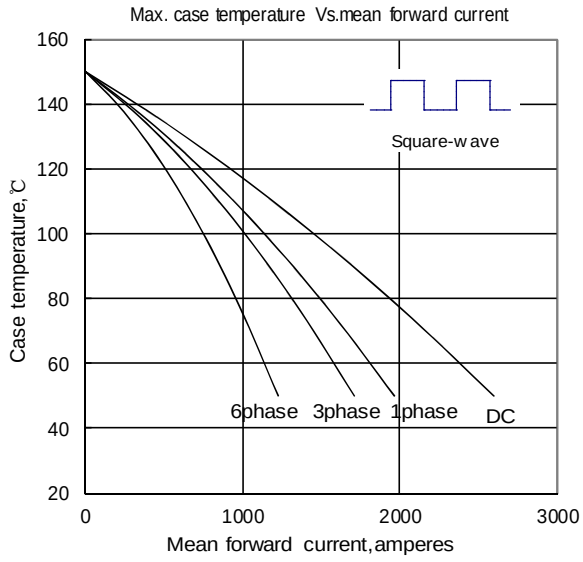


Fig.6

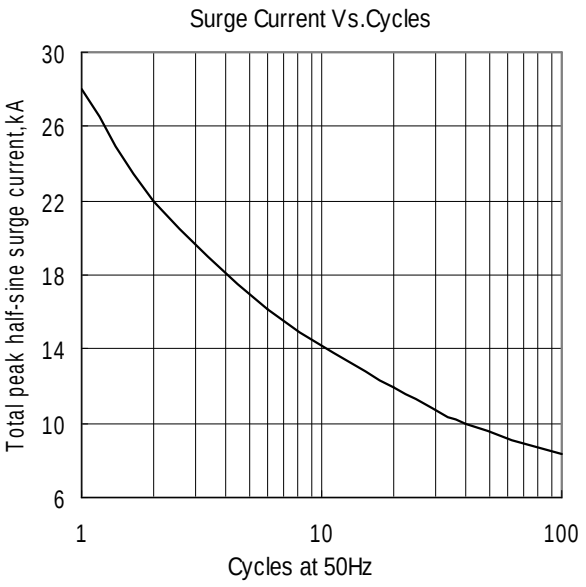


Fig.7

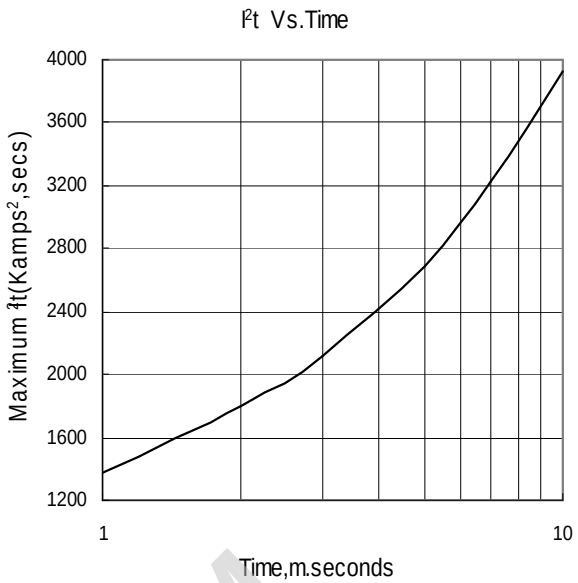
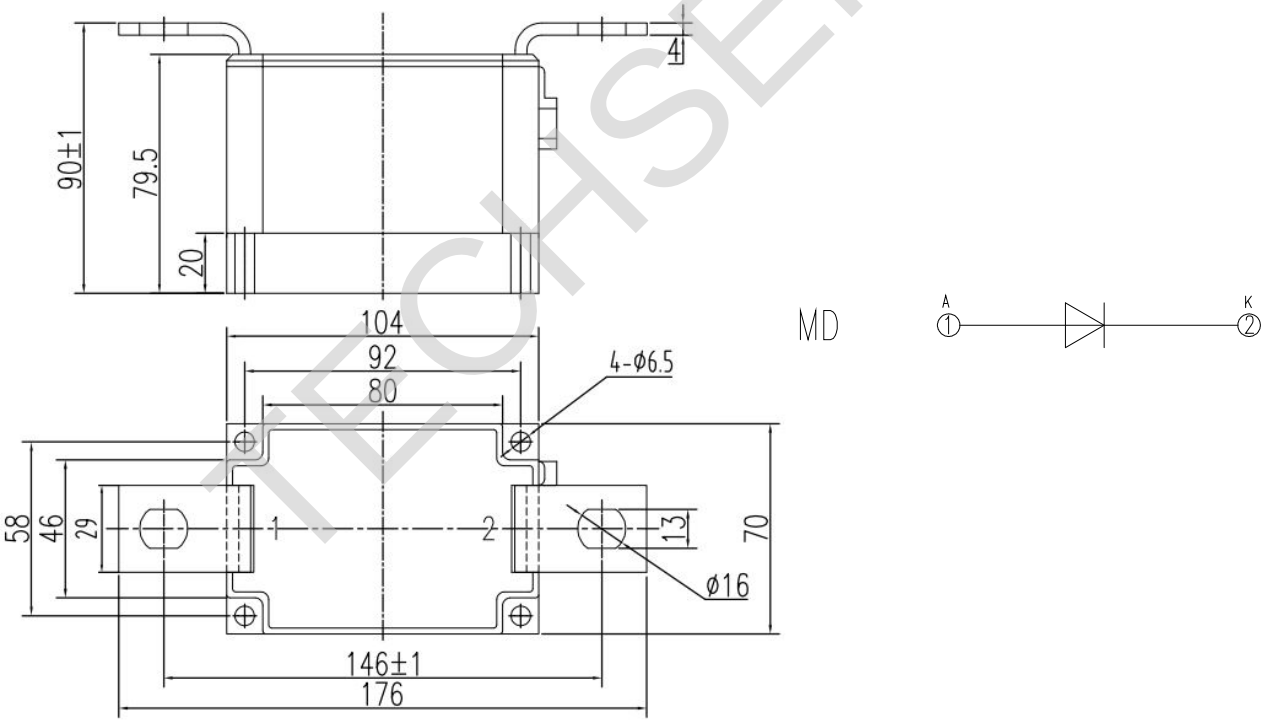
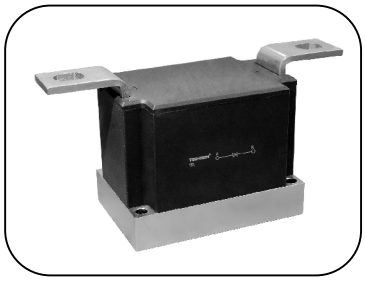


Fig.8

Outline:



Unmarked dimensional tolerance：±0.5mm



Features：

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

Typical Applications

- Various rectifiers
- DC supply for PWM inverter

V_{RRM}	Type & Outline
2000V	MD1000-20-432F2
2200V	MD1000-22-432F2
2500V	MD1000-25-432F2

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			1000	A
$I_{F(RMS)}$	RMS forward current					1570	A
I_{RRM}	Repetitive peak current	at V_{RRM}	150			50	mA
I_{FSM}	Surge forward current	V_R=60%V_{RRM}, t=10ms half sine	150			28	kA
I^2t	I^2t for fusing coordination					3920	10^3A^2s
V_{FO}	Threshold voltage		150			0.83	V
r_F	Forward slope resistance					0.12	mΩ
V_{FM}	Peak forward voltage	I_{FM}=3000A	25			1.44	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled per chip				0.045	°C/W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled per chip				0.020	°C/W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3000			V
F_m	Terminal connection torque(M12)			12		14	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T_{vj}	Junction temperature			-40		150	°C
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				2700		g
Outline	432F2						

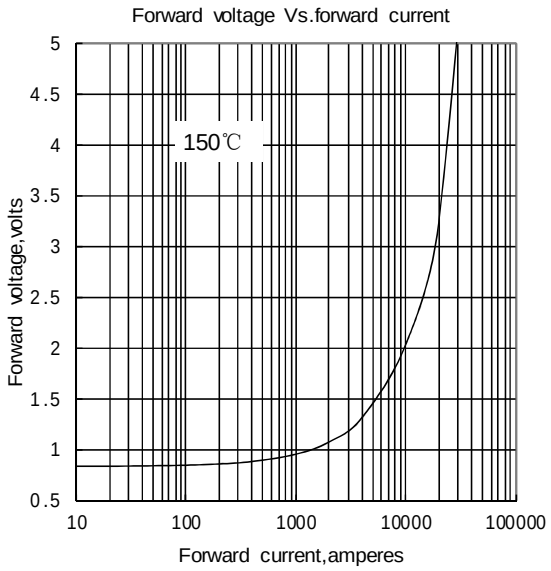


Fig.1

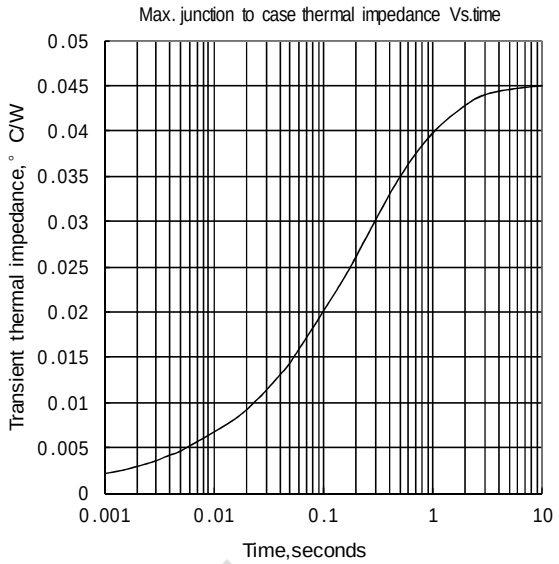


Fig.2

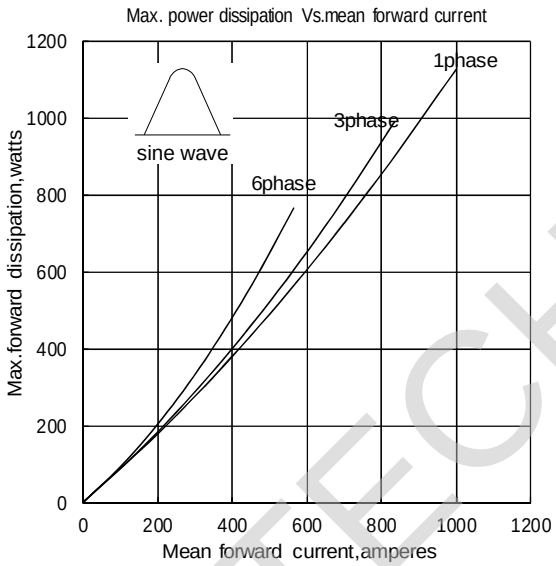


Fig.3

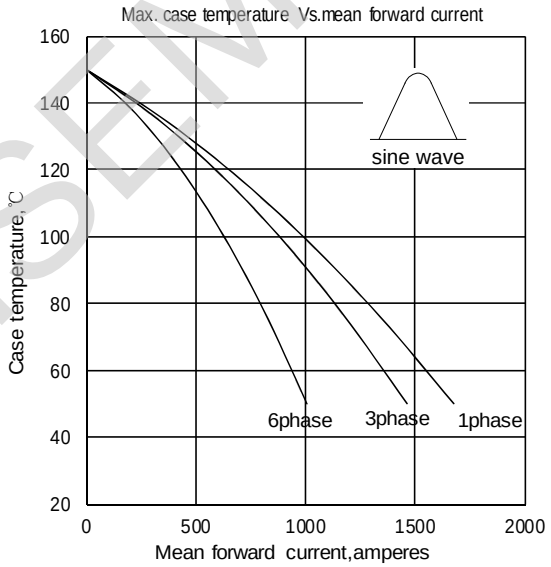


Fig.4

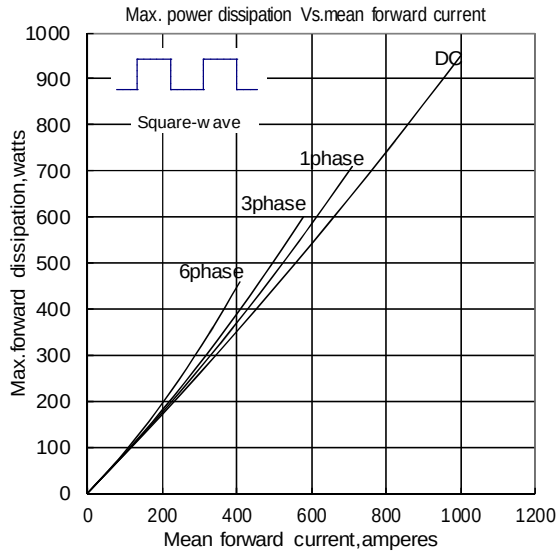


Fig.5

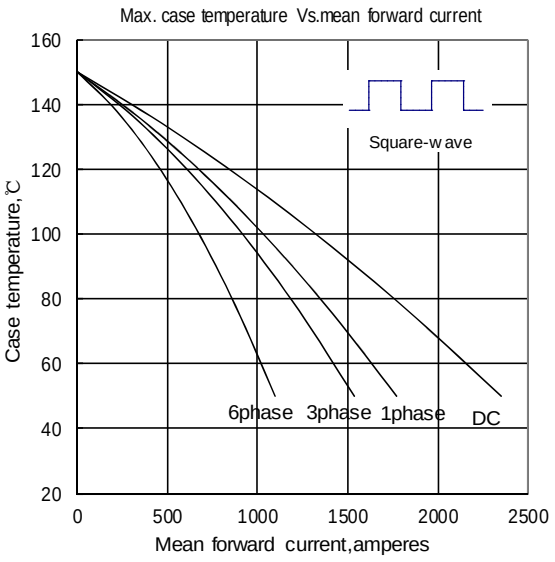


Fig.6

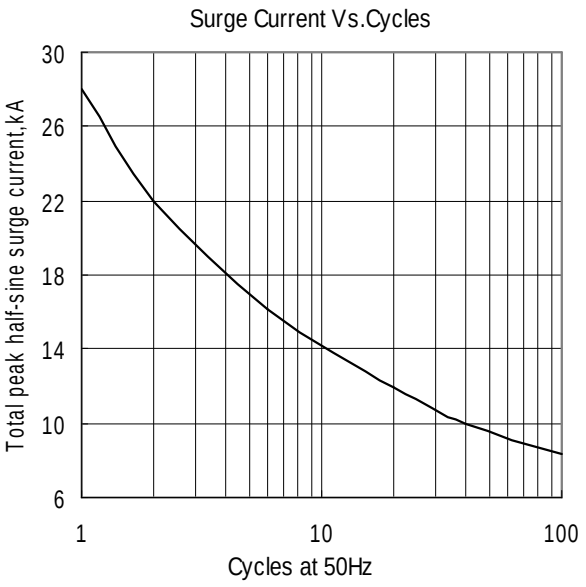


Fig.7

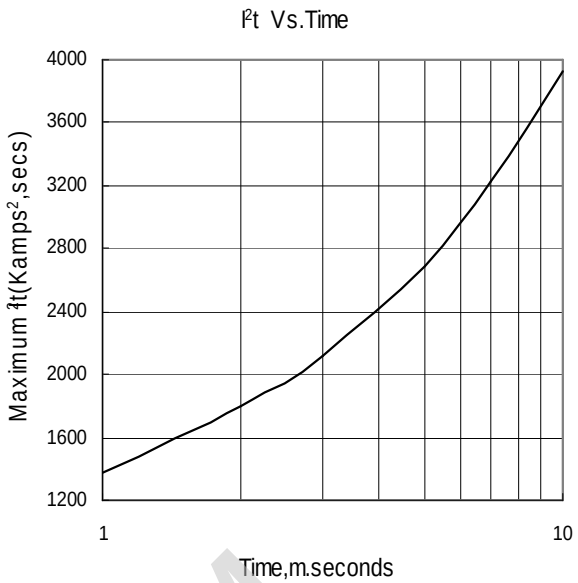
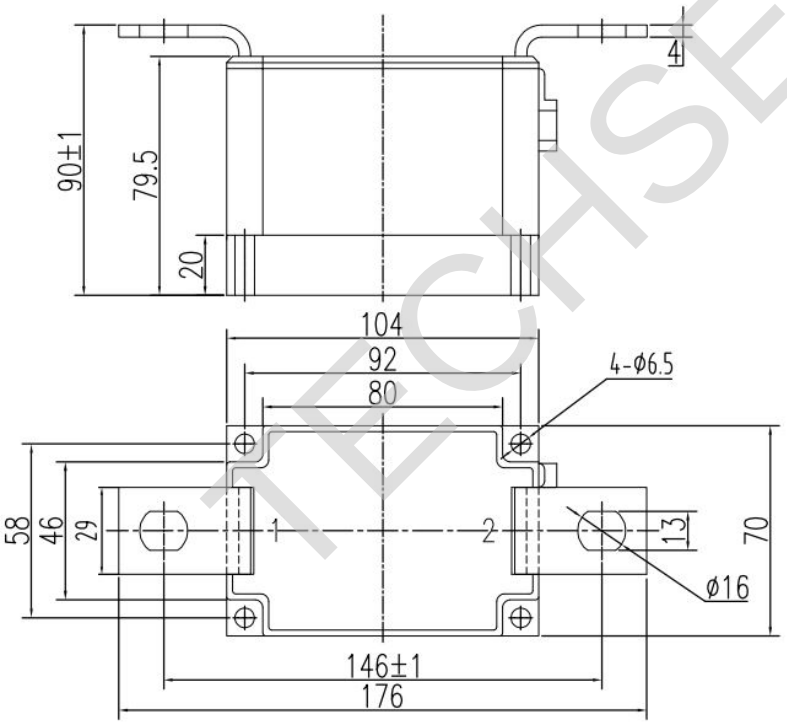


Fig.8

Outline:



Unmarked dimensional tolerance：±0.5mm