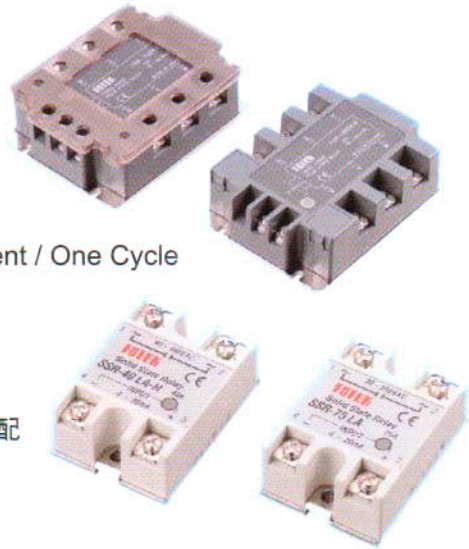


- ★ High Reliability by S.M.T. & TQC.  
( Surface Mounting Technology )
- ★ High Isolation over than 50MΩ / 500VDC
- ★ High Dielectric over than 2.5KV
- ★ Low Enable Current less than 7.5mA / 12VDC  
C MOS IC or TTL Compatible.
- ★ Low EMI / EFI & Surge by Zero Cross Trigger Method.
- ★ High Surge Current Duration Over 10 Times of Rated Current / One Cycle
- ★ High Surge Voltage Duration by Snubber Circuit.
- ★ 表面貼焊技術及全面品管，提供最可靠的 SSR
- ★ 高絕緣阻抗超過 50MΩ / 500VDC
- ★ 高耐壓超過 2.5KV
- ★ 低觸發電流小於 7.5mA / 12VDC，可與 CMOS IC及 TTL 匹配
- ★ 零點觸發方式避免電磁 / 高頻干擾
- ★ 高耐過電流，超過10倍額定電流/一週期
- ★ 具緩衝迴路可吸收瞬間突破



## Guiding of Model

### Terminal Type

#### Ex.SSR-40DA-H

① ② ③ ④ ⑤

① **Product** 產品別

SSR:SINGLE PHASE SOLID STATE RELAY  
單相固態繼電器  
TSR:THREE PHASE SOLID STATE RELAY  
三相固態繼電器

② **Output Current** 輸出電流

10 : 10A    25 : 25A  
40 : 40A    50 : 50A  
75 : 75A

③ **Input Voltage** 輸入方式

D:DC3W~32V<ON/OFF>  
A:AC80~250V<ON/OFF>  
L:4~20mA(linear)  
V:VARIABLE RESISTER

④ **Output Voltage** 輸出電壓

A:AC VOLTAGE  
D:DC VOLTAGE

⑤ **Output Voltage Range** 輸出電壓範圍

H : High Voltage Type < 90 ~ 480VAC >  
Non: Standard Type < 24 ~ 380VAC >

### PCB Type

#### Ex.SSR-P03DA

① ② ③ ④ ⑤

① **Product** 產品別

SSR : SINGLE PHASE SOLID STATE

② **Mounting Method** 固定方式

PCB:PCB TYPE

③ **Output Current** 輸出電流

03 = 3A  
05 = 5A

④ **Input Method** 輸入方式

D : DC VOLTAGE

⑤ **Output Voltage** 輸出電壓

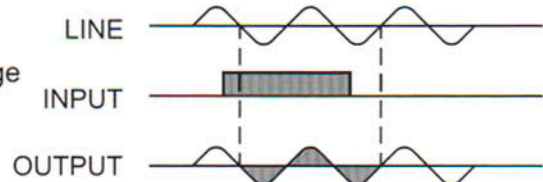
D : DC 5 ~ 60V  
A : AC 24 ~ 280V

## Control Method

### Zero Cross Trigger Method

Output TURN ON or TURN OFF only on Zero Cross Point of sine wave , may avoid surge or EMI / RFI occurring. Specially suited to control resistive , capacitive and Non - saturated inductive loads.

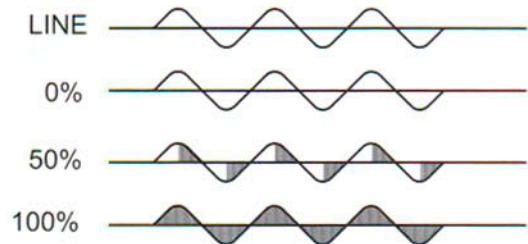
輸出只在正弦波的零點才會動作或復歸，可避免生突波或 EM / RFI，特別適於控制阻抗性，電容性和不飽和感抗性等負載。



### Variable Resistance Control Method

#### < Trimmer Control Method >

Power Output is Controlled by the Trigger Angle of Triac with Variable Resistor 250K  $\Omega$  /110VAC, 500K  $\Omega$  /220VAC  
 輸出功率以可變電阻 250K  $\Omega$  /110VAC, 500K  $\Omega$  /220VAC 控制 Triac 觸發角決定輸出功率。



## Application Hints

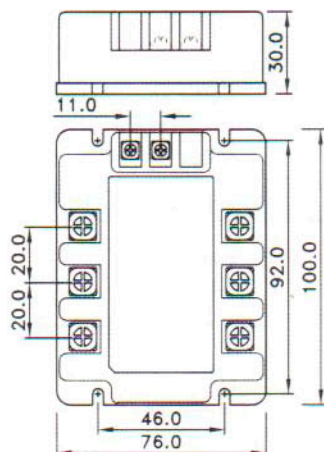
Input	NPN	Output	NO	Input	PNP	Output	NO	Input	L.S.	Output	NO
Input	NPN	Output	NC	Input	PNP	Output	NC	Latch Circuit ( AC to AC )			

# FOTEK **TSR SERIES THREE PHASE SOLID STATE RELAY**

## ■ Specification <Dc To Ac>

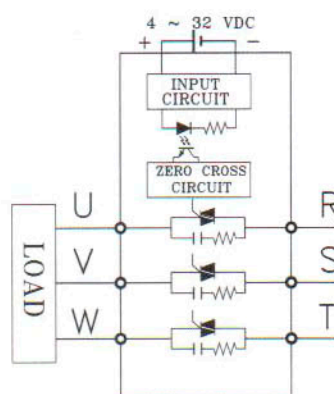
Type 型式	Standard Type 基本型			High Voltage Type 高壓型		
Model 型號	TSR-25DA	TSR-40DA	TSR-75DA	TSR-25DA-H	TSR-40DA-H	TSR-75DA-H
Rated Load Current 輸出額定電流	25A	40A	75A	25A	40A	75A
Input Voltage 輸入電壓	4~32VCD					
ON/OFF Voltage 動作/復歸電壓	ON > 3.6V/OFF < 2.4V					
Trigger Current 觸發電流	7.5A/12V					
Control Method 控制方式	Zero Cross Trigger 零點觸發					
Operating Voltage 工作電壓	24~380VAC			90~480VAC		
Min. Block Voltage 最低耐壓	600 VAC < Repetitive >					
Peak Voltage 耐突波	Over 1200V					
Max. One Cycle Surge 最大承受電流/一週期	275A	410A	820A	275A	410A	820A
Leakage Current 洩漏電流	12.5mA @ 380V			15.5mA @ 440V		
Response Time 動作應答時間	ON < 20ms/OFF < 20ms					
Dielectric Strength 耐壓強度	Over 2.5KVAC/1min.					
Isolation Strength 絕緣強度	Over 50M Ω / 500VDC					
Circumstance 工作環境	-20°C~+80°C					
Weight 重量	Appr.390g					

### ■ Dimension 外型尺寸圖

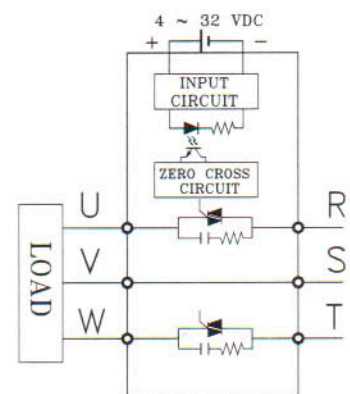


### ■ Connection Diagram 接線圖

TSR-25DA(H) ; TSR-40DA(H)



TSR-75DA(H)

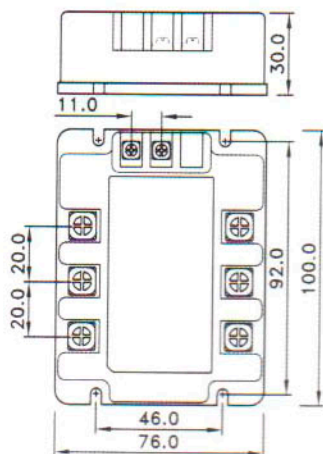


# TSR SERIES THREE PHASE SOLID STATE RELAY **FOTEK**

## ■ Specification <Ac To Ac>

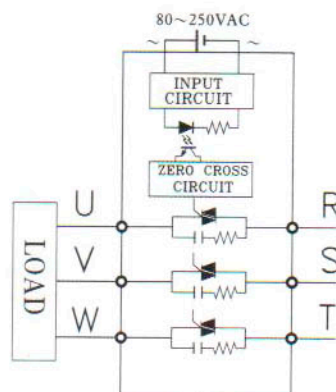
Type 型式	Standard Type 基本型			High Voltage Type 高壓型		
Model 型號	TSR-25AA	TSR-40AA	TSR-75AA	TSR-25AA-H	TSR-40AA-H	TSR-75AA-H
Rated Load Current 輸出額定電流	25A	40A	75A	25A	40A	75A
Input Voltage 輸入電壓	80~250VAC 50/60Hz					
ON/OFF Voltage 動作/復歸電壓	ON > 45V OFF < 35V					
Trigger Current 觸發電流	5.0mA/110V max					
Control Method 控制方式	Zero Cross Trigger 零點觸發					
Operating Voltage 工作電壓	24~380VAC			90~480VAC		
Min. Block Voltage 最低耐壓	600 VAC < Repetitive >					
Peak Voltage 耐突波	Over 1200V					
Max. One Cycle Surge 最大承受電流/一週期	275A	410A	820A	275A	410A	820A
Leakage Current 洩漏電流	12.5mA @ 380V			15.5mA @ 440V		
Response Time 動作應答時間	ON < 20ms/OFF < 20ms					
Dielectric Strength 耐壓強度	Over 2.5KVAC/1min.					
Isolation Strength 絕緣強度	Over 50M Ω / 500VDC					
Circumstance 工作環境	-20°C~+80°C					
Weight 重量	Appr.390g					

### ■ Dimension 外型尺寸圖

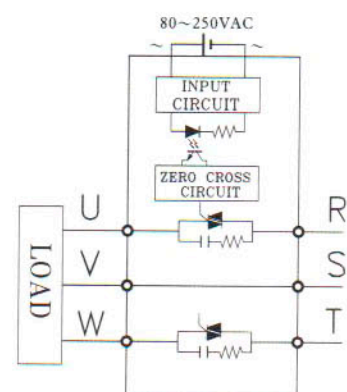


### ■ Connection Diagram 接線圖

TSR-25DA(H) ; TSR-40DA(H)



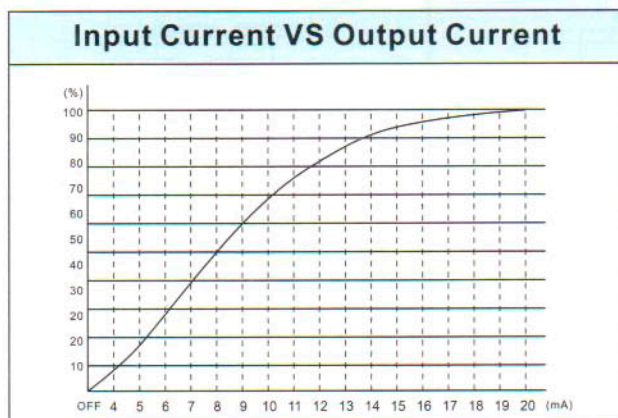
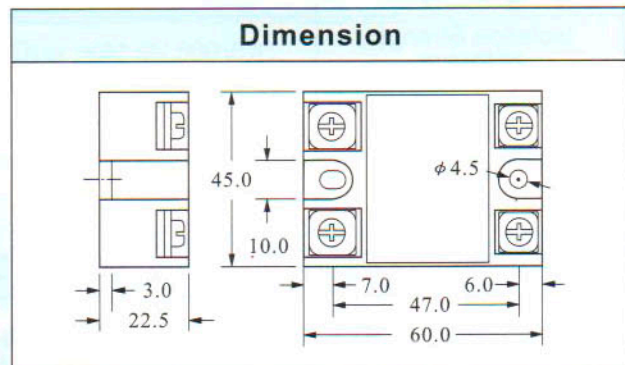
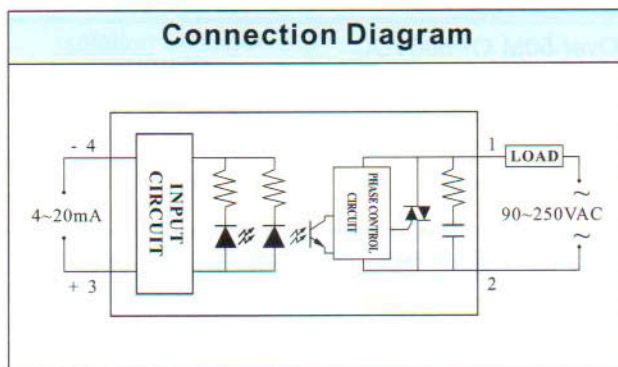
TSR-75DA(H)



# FOTEK SSR-LA SERIES LINEAR CONTROL SOLID STATE RELAY

## ■ Specification

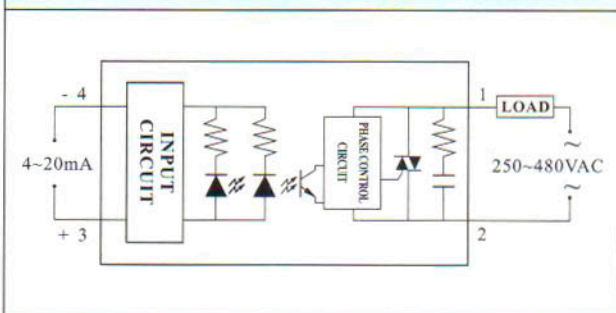
Type	Standard Type			
Model	SSR-25LA	SSR-40LA	SSR-50LA	SSR-75LA
Rated Load Current	25A	40A	50A	75A
Input Data				
Input	4~20mA			
Input Resistance	Appr.1.2KΩ			
Control Method	Phase Control			
Operating Data				
Operating Voltage	90~250 VAC			
Min. Blocking Voltage	600 VAC < Repetitive >			
Max. Duratde Current	275A	410A	550A	820A
Leakage Current	≤0.5% of Full Load			
Peak Voltage	Over 1200VAC			
General Data				
Dielectric Strength	Over 2.5KVAC/1min.			
Isolation Strength	Over 50M Ω / 500VDC			
Operating Temperature	-20°C ~ +80°C			
Housing Material	Intensive ABS			
Weight	Appr.105g		Appr.110g	



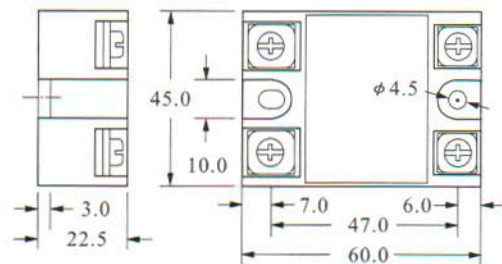
## ■ Specification

Type	Standard Type			
Model	SSR-25LAH	SSR-40LAH	SSR-50LAH	SSR-75LAH
Rated Load Current	25A	40A	50A	75A
Input Data				
Input	4~20mA			
Input Resistance	Appr.1.2KΩ			
Control Method	Phase Control			
Operating Data				
Operating Voltage	250~480 VAC			
Min. Blocking Voltage	600 VAC < Repetitive >			
Max. Duratde Current	275A	410A	550A	820A
Leakage Current	≤0.5% of Full Load			
Peak Voltage	1200V			
General Data				
Dielectric Strength	Over 2.5KVAC/1min.			
Isolation Strength	Over 50M Ω / 500VDC			
Operating Temperature	-20°C ~ +80°C			
Housing Material	Intensive ABS			
Weight	Appr.105g		Appr.110g	

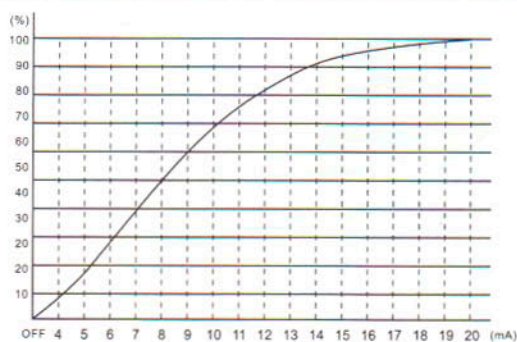
### Connection Diagram



### Dimension

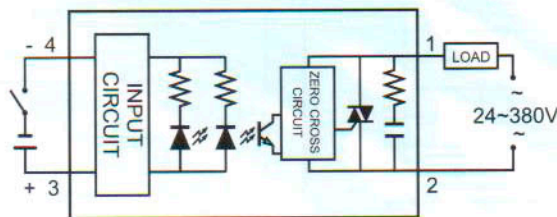


### Input Current VS Output Current



## ■ Specification

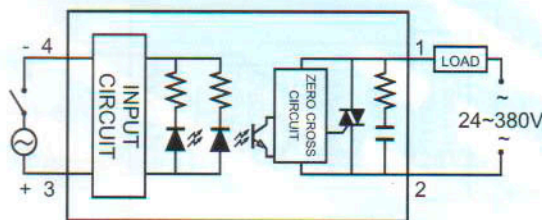
Type	Terminal Type					PCB Type
Model	SSR-10DA	SSR-25DA	SSR-40DA	SSR-25DA-H	SSR-40DA-H	SSR-P03DA
Rated Load Current	10A	25A	40A	25A	40A	3A
<b>Input Data</b>						
Operating Voltage	3~32VDC					
Min. ON / OFF Voltage	ON > 2.4V , OFF < 1.0V					
Trigger Current	7.5mA / 12V					
Control Method	Zero Cross Trigger					
<b>Output Data</b>						
Operating Voltage	24~380VAC		90~480VAC		24~380VAC	
Min. Black Voltage	600 VAC < Repetive >					
Voltage Drop	1.6 V / 25 C					
Max. Durated Current	135A	275A	410A	275A	410A	135A
Leakage Current	3.0mA	3.0mA	3.0mA	5.0mA	5.0mA	3.0mA
Response Time	ON < 10ms , OFF < 10ms					
<b>General Data</b>						
Dielectric Strength	Over 2.5KVAC / 1min.					
Isolation Strength	Over 50MΩ / 500VDC					
Operating Temperature	-20 C ~+80 C					
Housing Material	Intensive ABS					
Weight	Appr. 105g					Appr. 15g
<b>Connection Diagram</b>						



**Specification**

Type	Terminal Type				
<b>Model</b>	<b>SSR-10AA</b>	<b>SSR-25AA</b>	<b>SSR-40AA</b>	<b>SSR-25AA-H</b>	<b>SSR-40AA-H</b>
Rated Load Current	10A	25A	40A	25A	40A
<b>Input Data</b>					
Operating Voltage	80~250VAC 50 / 60Hz				
Min. ON / OFF Voltage	ON > 45V , OFF < 35V				
Trigger Current	5.0mA / 110VAC max.				
Control Method	Zero Cross Trigger				
<b>Output Data</b>					
Operating Voltage	24~380VAC			90~480VAC	
Min. Black Voltage	600 VAC < Repetive >				
Voltage Drop	1.6 V / 25 C				
Response Time	ON < 20ms , OFF < 20ms				
Max. Durated Current	135A	275A	410A	275A	410A
Leakage Current	3.0mA	5.0mA	3.0mA	5.0mA	5.0mA
<b>General Data</b>					
Dielectric Strength	Over 2.5KVAC / 1min.				
Isolation Strength	Over 50MΩ / 500VDC				
Operating Temperature	-20 C ~+80 C				
Housing Material	Intensive ABS				
Weight	Appr. 110g				

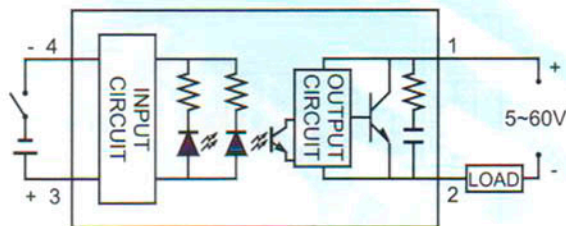
**Connection Diagram**



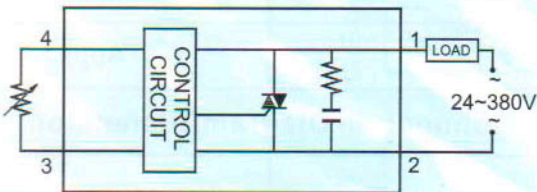


## ■ Specification

Type	Terminal Type		PCB Type
Model	<b>SSR-05DD</b>	<b>SSR-10DD</b>	<b>SSR-P03DD</b>
Rated Load Current	<b>5A</b>	<b>10A</b>	<b>3A</b>
<b>Input Data</b>			
Operating Voltage	3~32VDC		
Min. ON / OFF Voltage	ON > 2.4V , OFF < 1.0V		
Trigger Current	7.5mA / 12V		
Control Method	Isolated by photocoupler		
<b>Output Data</b>			
Operating Voltage	5~60VDC	5~60VDC	
Min. Block Voltage	300VDC		
Voltage Drop	1.6 V / 25 C		
Response Time	1ms < ON+OFF >		
Max. Durated Current	15A	30A	15A
Leakage Current	< 0.8mA		
<b>General Data</b>			
Dielectric Strength	Over 2.5KVAC / 1min.		
Isolation Strength	Over 50M Ω / 500VDC		
Operating Temperature	-20 C ~+80 C		
Housing Material	Intensive ABS		
Weight	Appr. 105g		Appr. 15g
<b>Connection Diagram</b>			



## ■ Specification

Type	Terminal Type		
Model	<b>SSR-10VA</b>	<b>SSR-25VA</b>	<b>SSR-40VA</b>
Rated Load Current	<b>10A</b>	<b>25A</b>	<b>40A</b>
<b>Input Data</b>			
Variable Resistance	Trimmer / 250k $\Omega$ to 110V , 500k $\Omega$ to 220V , / M $\Omega$ to 380V		
Control Method	Phase Control		
<b>Output Data</b>			
Operating Voltage	24~380VAC		
Min. Black Voltage	600 VAC < Repetive >		
Voltage Drop	1.6 V / 25 C		
Max. Durated Current	135A	275A	410A
Leakage Current	5.0mA	5.0mA	5.0mA
<b>General Data</b>			
Dielectric Strength	Over 2.5KVAC / 1min.		
Isolation Strength	Over 50M $\Omega$ / 500VDC		
Operating Temperature	-20 C ~+80 C		
Housing Material	Intensive ABS		
Weight	Appr. 105g		
<b>Connection Diagram</b>			
<b>Adjustable SSR</b>			
			
<p>VR : 250K<math>\Omega</math>/110VAC, 500K<math>\Omega</math>/220VAC</p>			

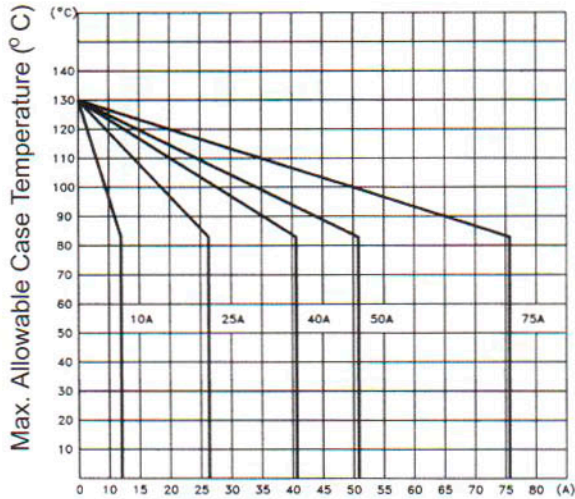
# FOTEK SSR SERIES HIGH CURRENT DC TO AC SOLID STATE RELAY

## ■ Specification

Type	Terminal Type			
Model	SSR-50DA	SSR-75DA	SSR-50DA-H	SSR-75DA-H
Rated Load Current	50A	75A	50A	75A
Input Data				
Operating Voltage	3~32VDC			
Min. ON / OFF Voltage	ON>2.4V , OFF<1.0V			
Trigger Current	7.5mA / 12V			
Control Method	Zero Cross Trigger			
Operating Data				
Operating Voltage	24~380VAC		90~480VAC	
Min. Blocking Voltage	600 VAC<Repetitive>			
Voltage Drop	1.6V / 25°C			
Max. Duratde Current	550A	820A	550A	820A
Leakage Current Max.	6.0mA	6.0mA	6.0mA	6.0mA
Response Time	ON<10ms , OFF<10ms			
General Data				
Dielectric Strength	Over 2.5KVAC/1min.			
Isolation Strength	Over 50M Ω / 500VDC			
Operating Temperature	-20°C ~+80°C			
Housing Material	Intensive ABS			
Weight	Appr.125g			
Connection Diagram/Dimension				

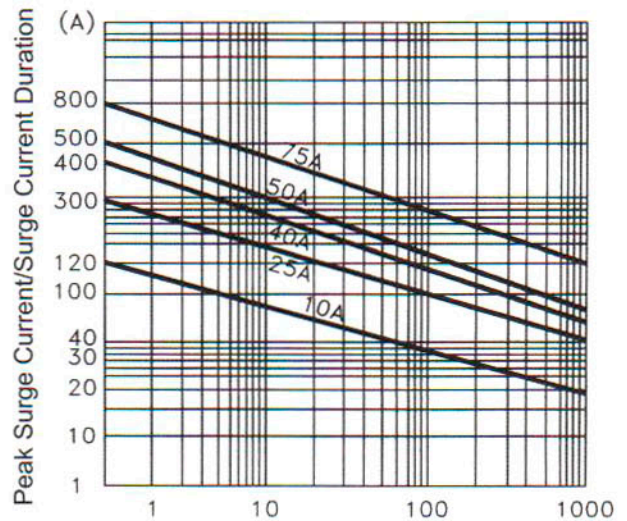
## Curve of Characteristic

**Max. Allowable Case Temperature**  
最高容許表面溫度



ON State Current (A) 動作電流

**Peak Surge Current/Surge Current Duration**  
衝擊電流 / 承受次數



Surge Current Duration (Full cycles)

## Dimension

Terminal Type	PCB Type
<p>Terminal Type dimensions diagram showing a rectangular component with three terminals on each side. The top terminal diameter is <math>\phi 4.5</math>. The overall width is 45.0. The distance between the two inner terminals is 10.0. The distance from the center of the inner terminals to the center of the outer terminals is 7.0. The total height is 60.0, with a distance of 47.0 from the top terminals to the bottom terminals. The bottom terminal height is 22.5, and the terminal width is 3.0.</p>	<p>PCB Type dimensions diagram showing the component mounted on a PCB. The overall width is 43.0. The distance from the left edge to the center of the IN terminal is 7.5. The distance between the IN and OUT terminals is 12.7. The distance from the center of the OUT terminal to the right edge is 7.5. The component height is 26.0. The terminal width is 0.8. The PCB mounting hole diameter is 5.1. The PCB thickness is 0.5, and the component height above the PCB is 5.5.</p>

■ Dimension < Heat Sink >

