

# TC Series

## Photo Triac

### Features

- Compact DIP8 Pin Package
- High Isolation Voltage 5000VAC between input and output
- 600VDC peak blocking Voltage
- Be suitable for 110/220VAC power voltage
- Random-on & Zero-on types are available

### Applications

- Power TRIAC driver
- Household appliance
- Solid State Relay



### Order Code:

TC 2 09 R - 7  
a b c d e

a : Model : TC=DIP 8 Pin Package Type  
b : Output Voltage : 2 = 240VAC  
c : Output Current : 09 = 0.9Amp ; 12 = 1.2Amp  
d : Turn on Type : Nil = Zero-on ; R = Random - on  
e : Option : Nil = DIP Type ; 7 = SMD Type

### Absolute Maximum Rating:

Item	Symbol	Rating		Unit	
		TC209(R)	TC212(R)		
Input	Forward Current	$I_F$	50	mA	
	Peak Forward Current	$I_{FP}$	1	A	
	Reverse Voltage	$V_R$	6	V	
Output	Off-state Output Voltage	$V_{DRM}$	600	VDC	
	On-state Output Current	$I_{R(RMS)}$	0.9	1.2	A
	Non-repetitive Surge Current	$I_{TSM}$	9	12	A
I/O Isolation Voltage		$V_{iso}$	5000	VAC	
Operating Temperature		$T_{opr}$	-30~+85	°C	
Storage Temperature		$T_{stg}$	-40~+125	°C	

### Electrical Characteristics:

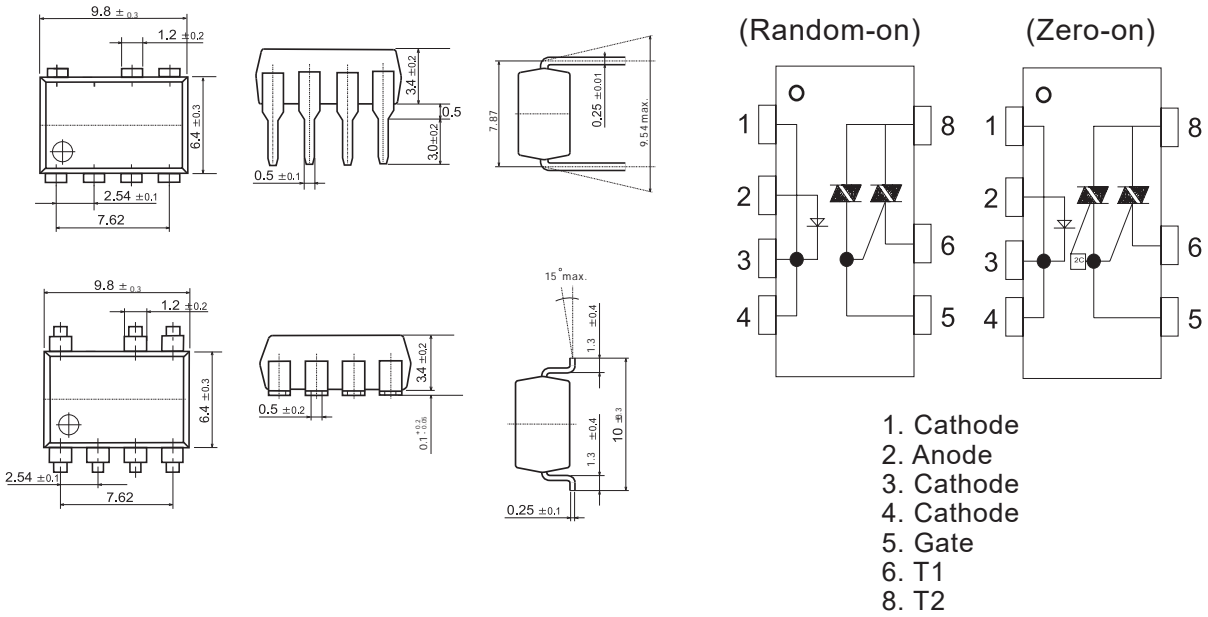
Item	Symbol	MIN.	Rating		MAX.	Unit	Conditions
			TC209(R)	TC212(R)			
Input	Forward Voltage	$V_F$	-	1.18	1.4	V	$I_F=10mA$
	Reverse Current	$I_R$	-	-	10	$\mu A$	$V_R=6V$
Output	Peak Leakage Current	$I_{DRM}$	-	-	100	$\mu A$	$V_{DRM}=600V$
	On-state Voltage	$V_{TM}$	-	1.3	1.1	2.3	$I_R=Rated I_R$
	Hold Current	$I_H$	-	-	25	mA	$V_D=6V$
	Rise rate of off-state	$dv/dt$	200	1000	-	$V/\mu S$	$V_{DRM}=600V/\sqrt{2}$
Minimum trigger current		$I_{FT}$	-	2	10	mA	$V_D=6V$
Recovery Input Voltage		$V_{F OFF}$	0.5	-	-	V	
I/O Isolation Resistance		$R_{iso}$	50G	-	-		DC=500V
Turn-on Time (Random-on)		$T_{ON}$	-	8	100	$\mu S$	$I_F=20mA$
Turn-on Time (Zero-on)		$T_{ON}$	-	-	10	mS	-
Turn-off Time		$T_{OFF}$	-	-	10	mS	-

為了持續的改進，敝司有權在不影響規格範圍的情況下修改設計。

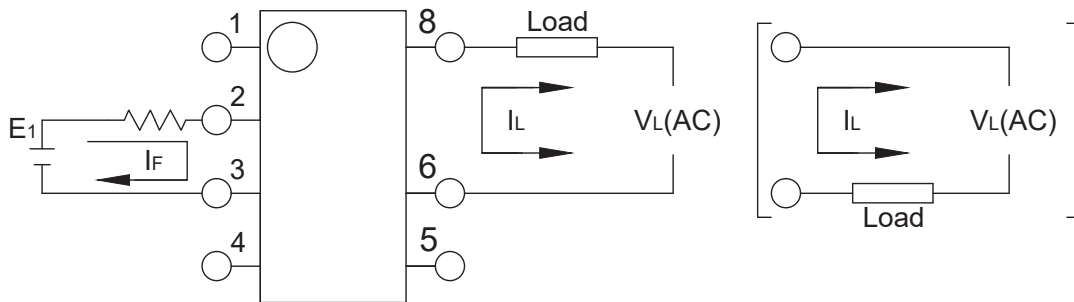
Note: Recommended trigger current is between 10mA and 20mA

In the interest of continuous development, our companies reserve the right to alter designs within specification range.

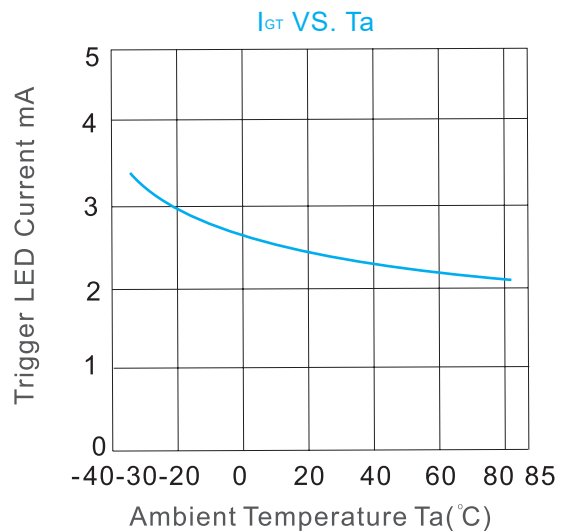
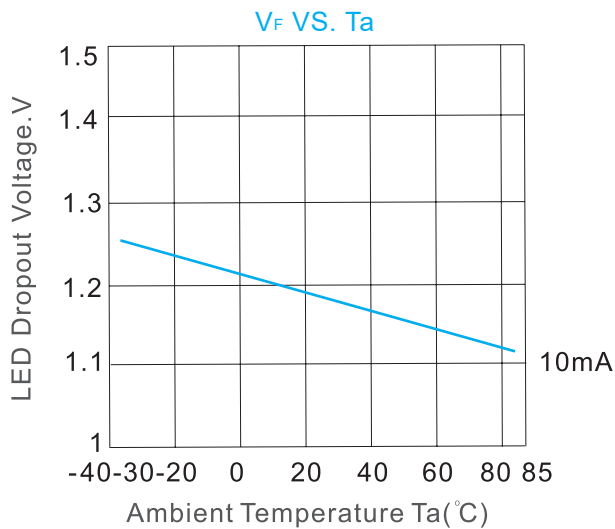
Dimensions : (Unit : mm)



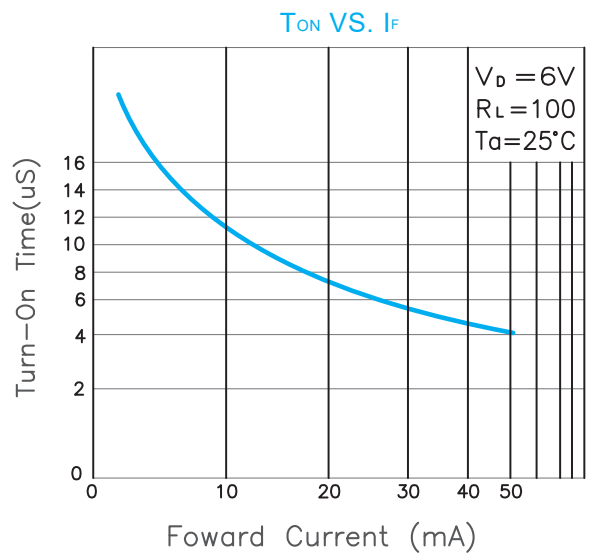
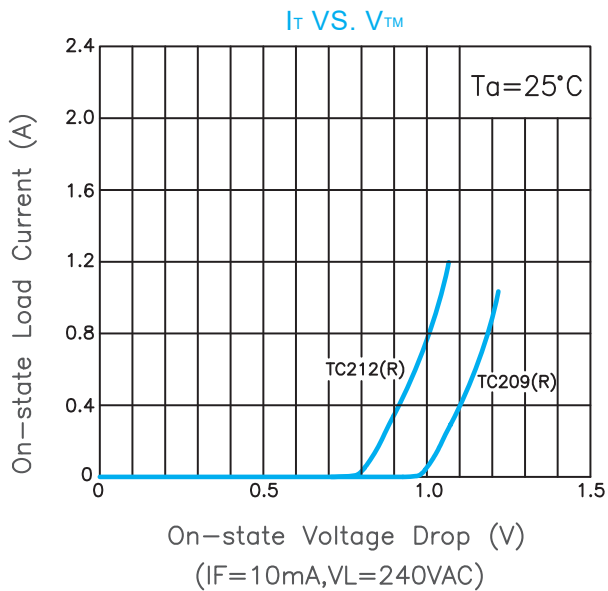
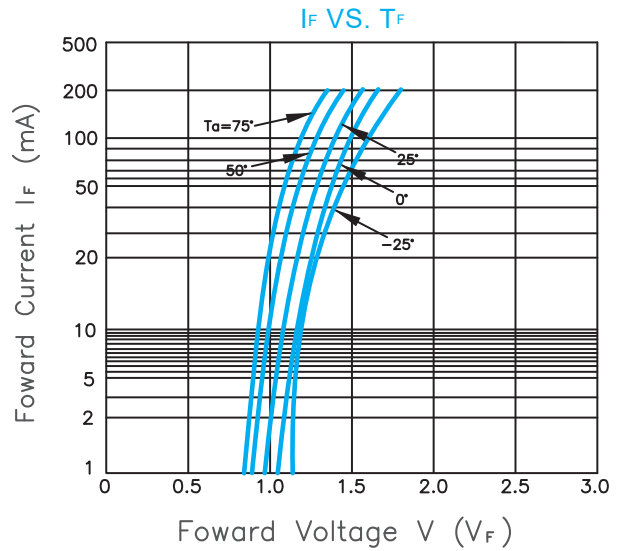
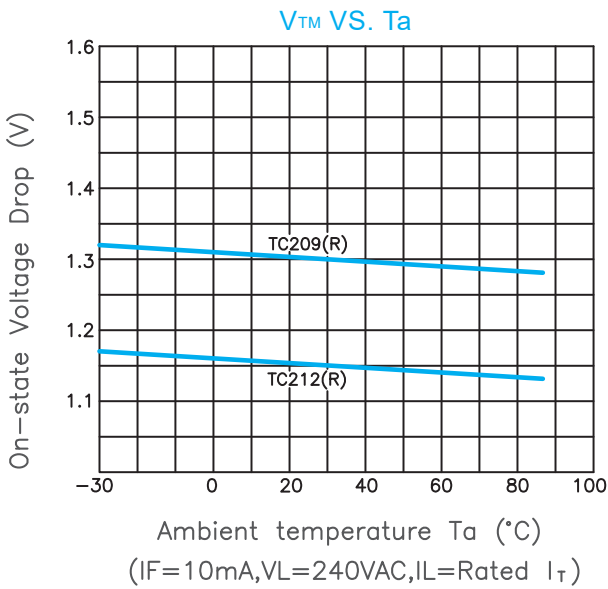
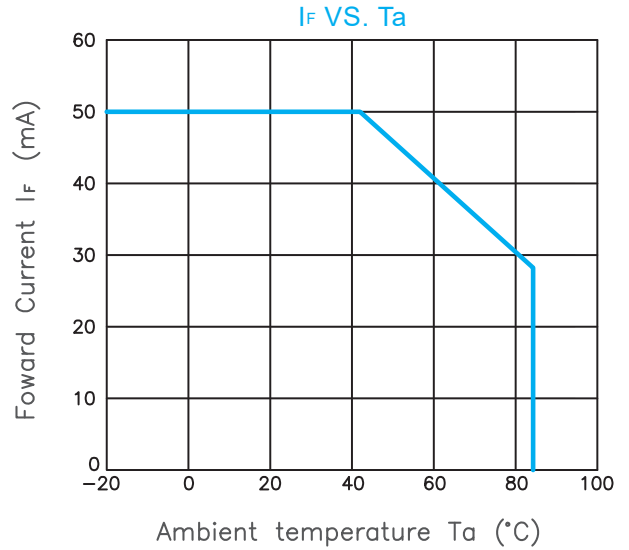
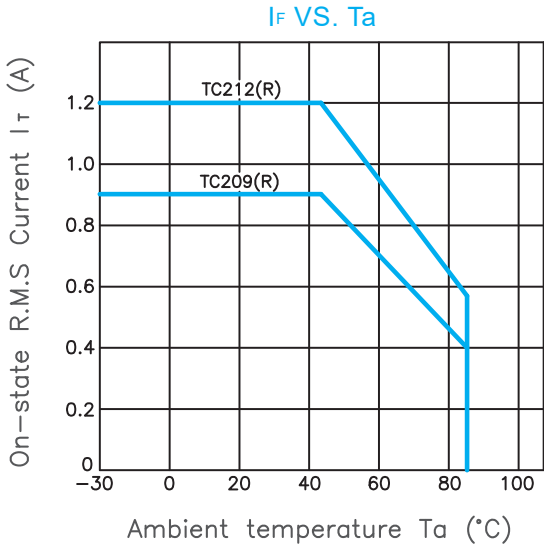
Wiring Diagram



REFERENCE DATA :



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