

# TL Series

## DC Input & AC Output 8A/16A

### Features

- High isolation voltage 4000 VAC between input and output
- 600VDC peak blocking Voltage
- Be suitable for 110/220VAC power voltage
- Random-on & Zero-on types are available
- UL Recognized

### Applications

- Household appliance
- Programmable controller



### Order Code:

TL 2 16 R - X  
a b c d e

a : Model : TL = SIP 4 Pin Package  
b : Output Voltage : 2 = 240VAC  
c : Output Current : 08 = 8Amp ; 16 = 16Amp  
d : Turn - on Type : Nil = Zero - on ; R = Random - on  
e : Option : Nil = Standard, 1-9 = Special code

### Absolute Maximum Rating:

Items		Symbol	Rating		Unit
			TL208(R )	TL216(R )	
Input	Forward Current	I <sub>F</sub>	50		mA
	Peak Forward Current	I <sub>FP</sub>	1		A
	Reverse Voltage	V <sub>R</sub>	6		VAC
Output	Maximun Load Voltage	V <sub>omax</sub>	280		VAC
	Off-state Output Voltage	V <sub>DRM</sub>	600		VDC
	On-state Output Current	I <sub>T(RMS)</sub>	8	16	A
	Non-repeative Sutge Current	I <sub>TSM</sub>	80	160	A
I/O Isolation Voltage		V <sub>iso</sub>	4000		VAC
Operating Temperature		T <sub>opr</sub>	-25~+100		°C
Storage Temperature		T <sub>stg</sub>	-35~+125		°C

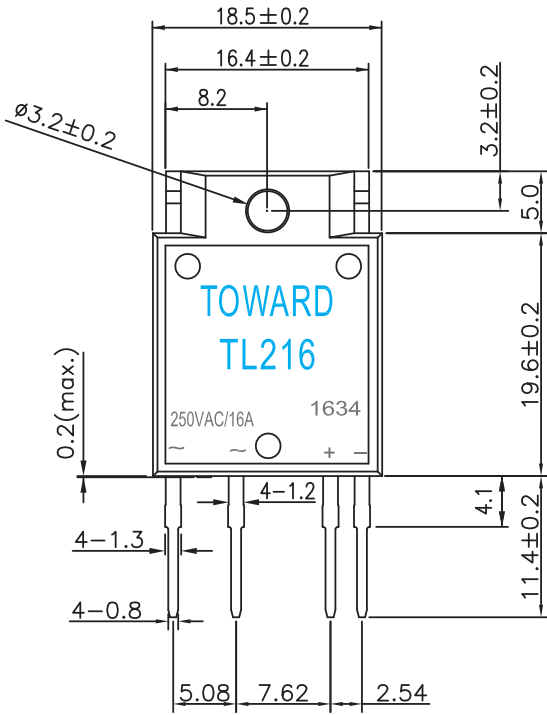
### Electrical Characteristics:

Items		Symbol	MIN.	TYP.	MAX.	Unit	Conditions
Input	Forward Voltage	V <sub>F</sub>	-	1.18	1.4	V	I <sub>F</sub> =10mA
	Reverse Current	I <sub>R</sub>	-	-	10	μA	V <sub>R</sub> =5V
Output	Leakage Voltage Range	V <sub>O</sub>	35	-	280	VAC	
	Peak Leakage Current	I <sub>DRM</sub>	-	-	100	μA	V <sub>DRM</sub> =600V
	On-state Voltage	V <sub>TM</sub>	-	-	1.5	V	I <sub>T</sub> =Rated IT
	Hold Current	I <sub>H</sub>	-	-	50	mA	V <sub>DRM</sub> =600V/√2
	Rise rate of off-state	dv/dt	30	-	-	V/μS	V <sub>DRM</sub> =600V/√2
Minimum trigger current		I <sub>FT</sub>	-	-	10	mA	V <sub>O</sub> =6V
Recovery Input Voltage		V <sub>F OFF</sub>	0.5	-	-	V	
I/O Isolation Resistance		R <sub>iso</sub>	10 <sup>10</sup>	-	-	Ω	DC=500V
Turn-on Time (Random-on)		T <sub>ON</sub>	-	-	1	mS	I <sub>F</sub> =20mA
Turn-on Time (Zero-on)		T <sub>ON</sub>	-	-	10	mS	-
Turn-off Time		T <sub>OFF</sub>	-	-	10	mS	-

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

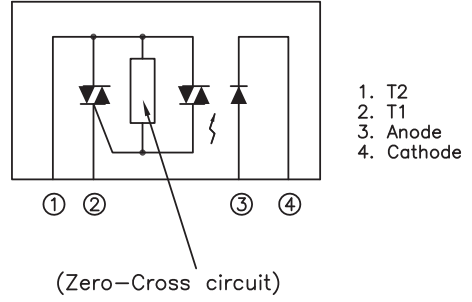
Dimensions : (Unit : mm)

Dimensions (mm)

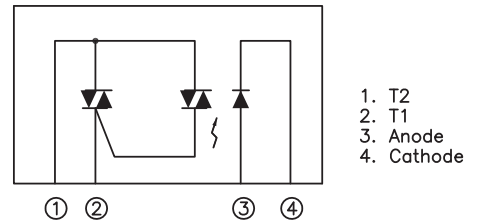


Equivalent Circuit(Top view)

Zero-On



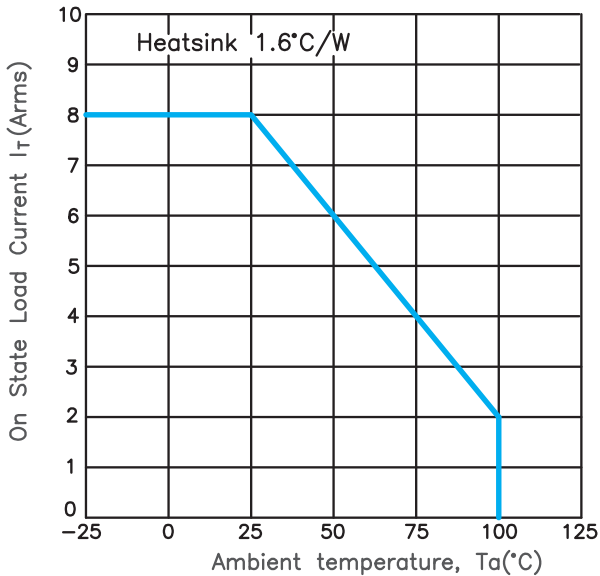
Random-On



REFERENCE DATA :

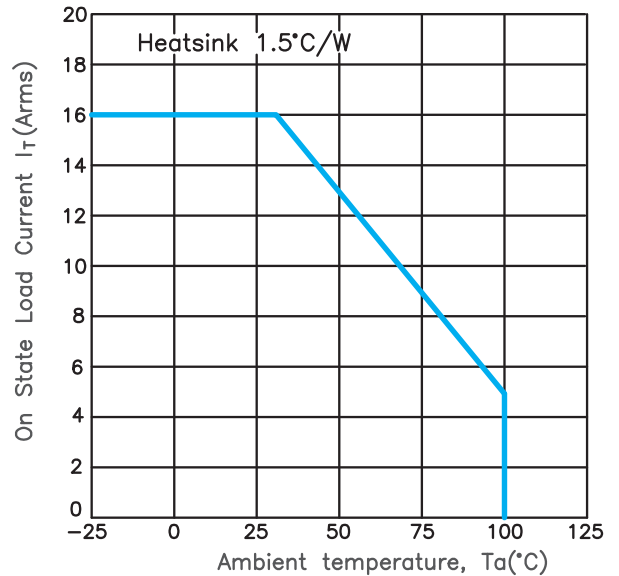
TL208

Mximum Load Current Vs. Ambient temperature

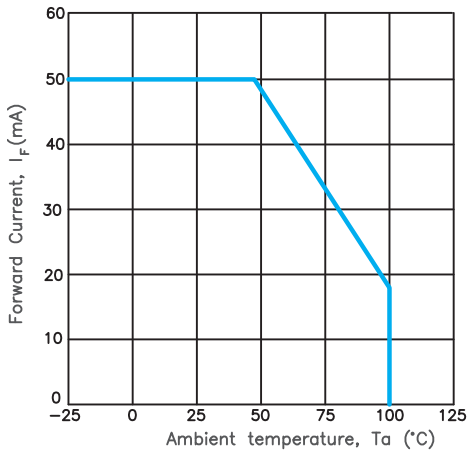


TL216

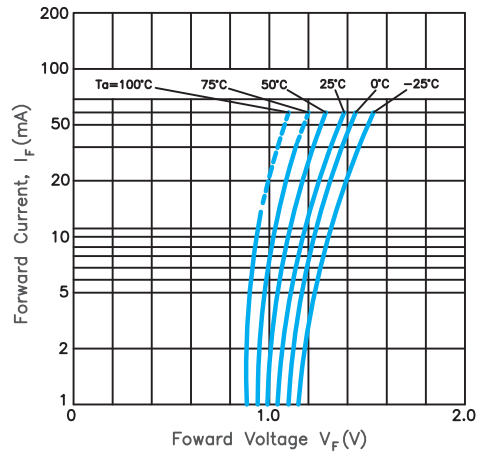
Mximum Load Current Vs. Ambient temperature



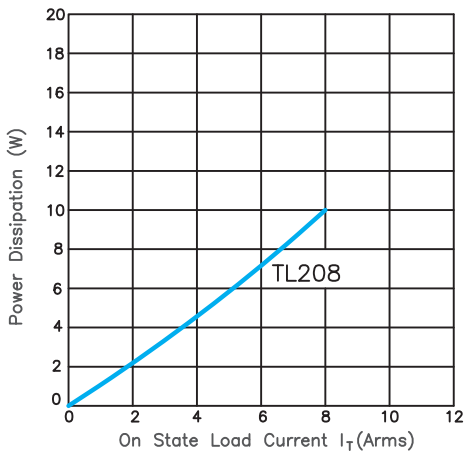
Forward Current Vs. Ambient temperature



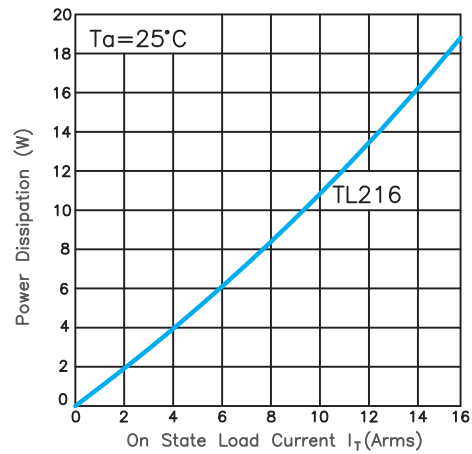
Forward Current Vs. Forward Voltage



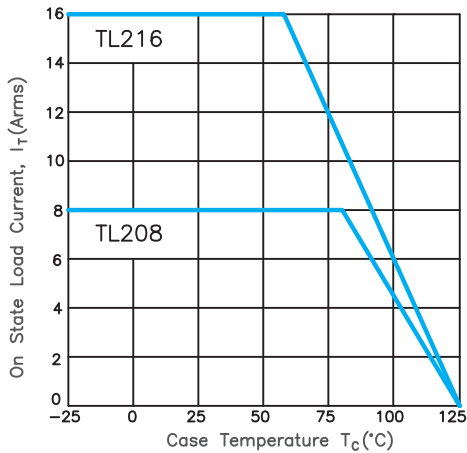
On State Power Dissipation Vs. On State Load Current



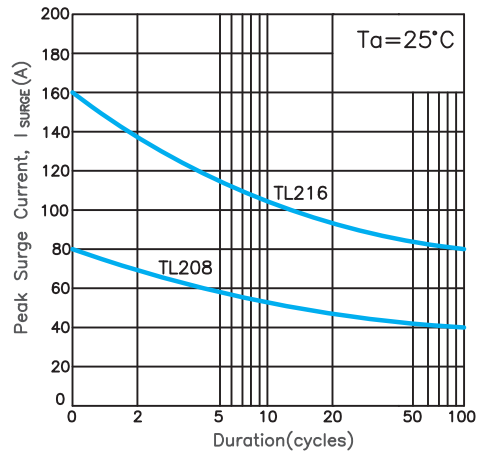
On State Power Dissipation Vs. On State Load Current



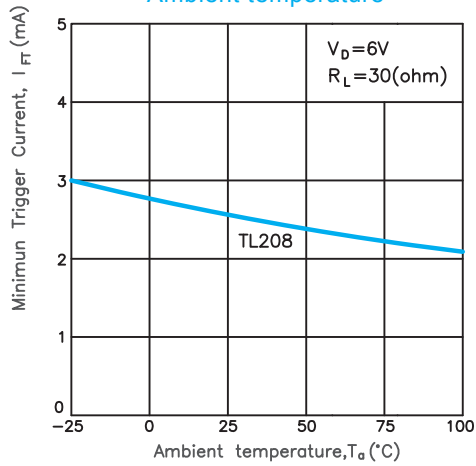
Maximum Load Current Vs. Case Temperature



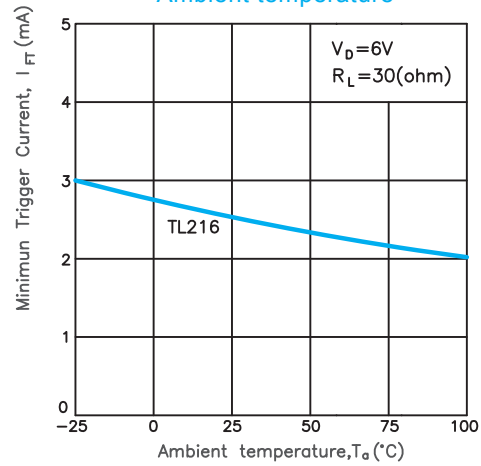
Peak Surge Current V.S Duration (Non Repetitive)



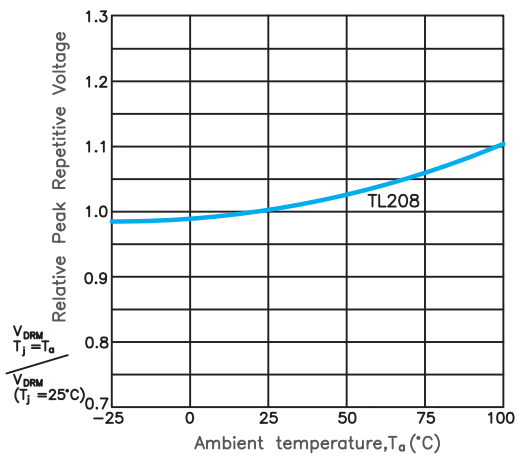
Minimum Trigger Current Vs. Ambient temperature



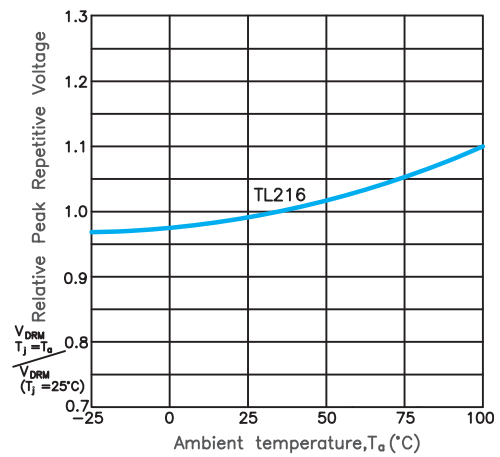
Minimum Trigger Current Vs. Ambient temperature



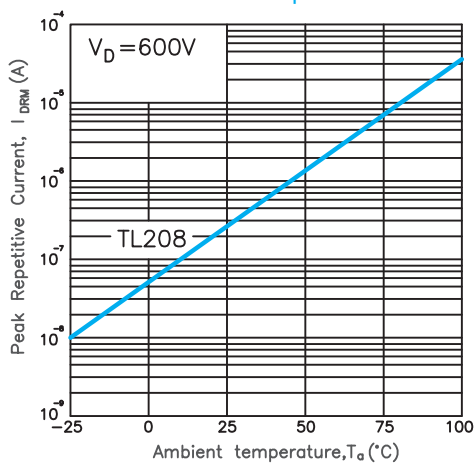
Relative Peak Repetitive Voltage Vs. Ambient Temperature



Relative Peak Repetitive Voltage Vs. Ambient Temperature



Peak Repetitive Current Vs. Ambient Temperature



Peak Repetitive Current V.S Ambient Temperature

