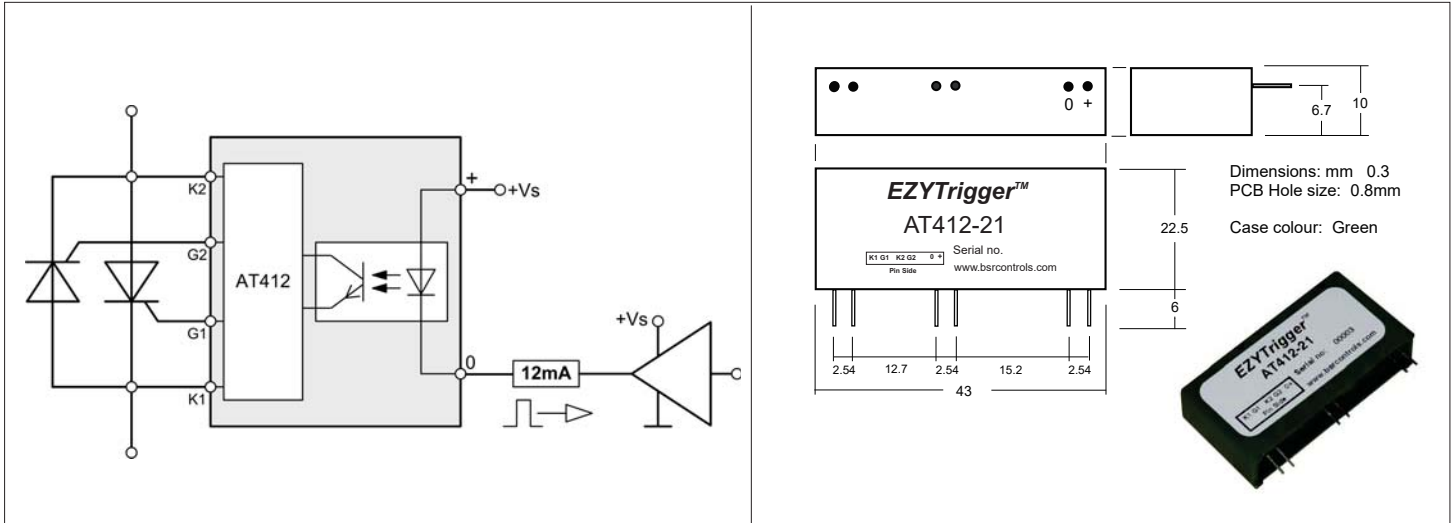


## Applications:

- Zero-cross switching applications



## Absolute Maximum Ratings

### EZYTrigger Type

Parameter	Symbol	AT412 - 12	AT412 - 21
Peak voltage – positive and negative	Vp	1200 V	2100 V
Nominal mains voltage	Vm	400 V	690 V
Continuous DC voltage	V=	400 V	690 V
Turn-on delay for gate current >1A	tgd	5 µs	5 µs
Input-Output Isolation	Vi	6000Vrms 50Hz 1min VDE0884	
Input-Output transient immunity	(dv/dt)c	5000 V/µs	
Device transient immunity	(dv/dt)d	2000 V/µs	
Ambient temperature range	Ta	-20°C to +85°C	

## Technical Data at 25°C

200mA gate current threshold	Vgtl	10 V	16 V
1.8A gate current threshold	Vgth	24 V	36 V
Gate current rise time ⇒ anode voltage	(di/dt)g	2.5 A/µs	1.2 A/µs
	⇕ 200V (di/dt)g	3 A/µs	2 A/µs
	⇕ 400V (di/dt)g	4 A/µs	2.5 A/µs
	⇕ 800V (di/dt)g	6 A/µs	3 A/µs
	⇕ 1200V (di/dt)g	-	4 A/µs
Peak gate current	Ip	1.8 A	1.8 A
Anode-cathode current at peak voltage Vp	In	4.4 mA	5.1 mA
Maximum off-state gate current	Io	< 40 µA	< 40 µA
Minimum control current	Icm	7 mA	7 mA
Recommended control current	Ic	12 mA	12 mA
Control input voltage drop at 12mA gate current	Vin	Typ 1.2 < 1.5V	Typ 1.2 < 1.5V
Maximum reverse control input voltage	Vinr	6 V	6 V
Turn-on delay time at Icontrol = 12mA	tdi	25 µs	25 µs
Zero-crossing threshold	Vzt	<20 V	<20 V