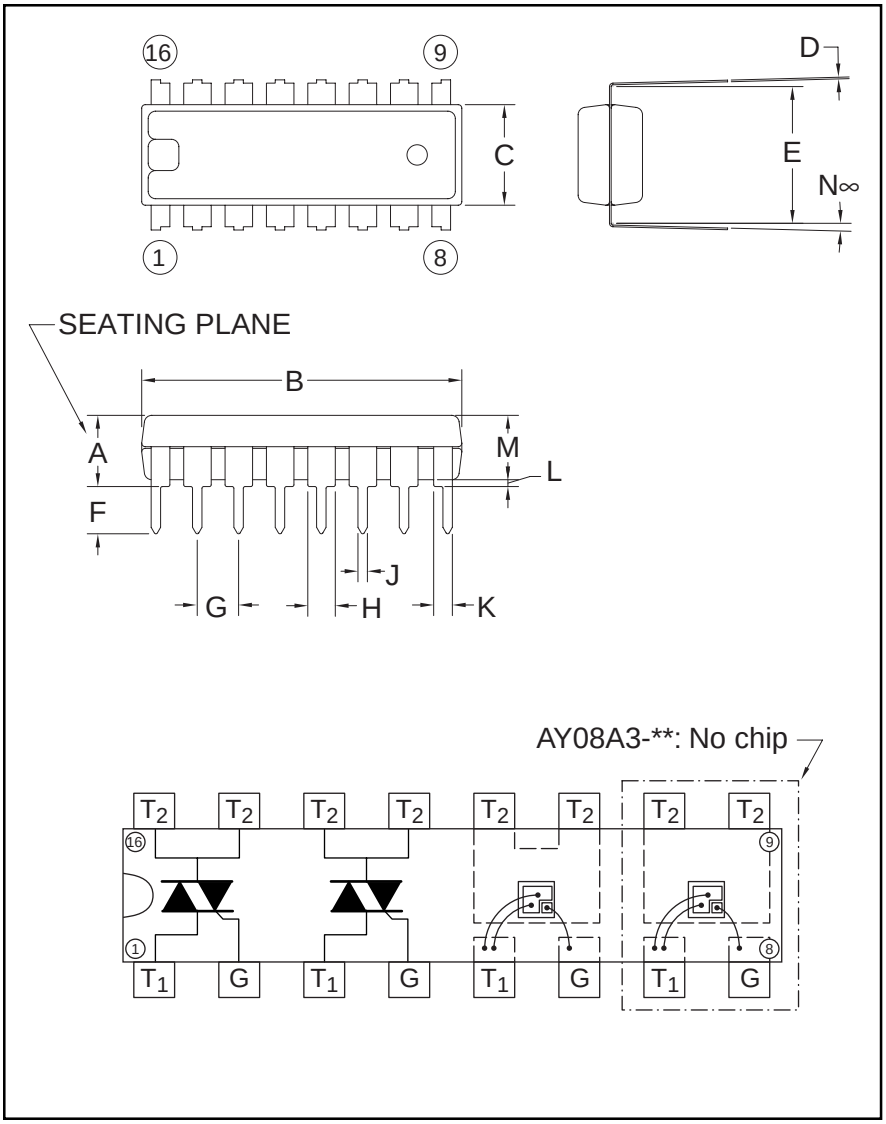
Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (724) 925-7272

16-Pin Multiple Circuit Triac
0.8 Amperes/400-700 Volts



Outline Drawing

Dimension	Inches	Millimeters
A	1.8 Max.	4.5 Max.
B	0.75±0.01	19.0±0.2
C	0.25±0.01	6.3±0.15
D	0.01	0.27 +0.07/-0.05
E	0.3	7.62
F	0.12 Min.	3.0 Min.

Dimension	Inches	Millimeters
G	0.1	2.54
H	0.06 +0.01/-0	1.5 +0.3/-0.1
J	0.02	0.5±0.1
K	0.04 +0.01/-0	1.0 +0.3/-0.1
L	0.02 Min.	0.51 Min.
M	0.13	3.3

Description:
A triac is a solid state silicon AC switch which may be gate triggered from an off-state to an on-state for either polarity of applied voltage.

Features:

- ☐ Planar Passivation
- ☐ Surface Mount Type
- ☐ Multiple Circuits in one Package

Applications:

- ☐ Electric Fan
- ☐ Air Cleaner
- ☐ Small Motor Control

Ordering Information:
Example: Select the complete part number from the table below -i.e. AY08A4-14 is a 0.8 Ampere, 4 Circuit, 700V, 16-Pin Multiple Circuit Triac.

Type	Number of Circuits	Voltage (x 50)
AY08A	3	-8
	4	-12
		-14

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AY08A3-**
AY08A4-**
16-Pin Multiple Circuit Triac
0.8 Amperes/400-700 Volts

Absolute Maximum Ratings (for One Chip), T_j = 25°C unless otherwise specified

Characteristics	Symbol	AY08A*-08	AY08A*-12	AY08A*-14	Units
Repetitive Peak Off-state Voltage, Gate Open	V_{DRM}	400	600	700	Volts
Non-Repetitive Peak Off-state Voltage, Gate Open	V_{DSM}	500	720	840	Volts
On-state Current, T_c = 86°C	$I_{T(RMS)}$	0.8	0.8	0.8	Amperes
Non-repetitive Peak Surge, One Cycle (60Hz)	I_{TSM}	8	8	8	Amperes
I^2t for Fusing, t = 8.3 msec	I^2t	0.26	0.26	0.26	A^2sec
Peak Gate Power Dissipation, 20 msec	P_{GM}	1	1	1	Watts
Average Gate Power Dissipation	$P_{G(avg)}$	0.1	0.1	0.1	Watts
Peak Gate Current	I_{GM}	0.8	0.8	0.8	Amperes
Peak Gate Voltage	V_{GM}	6	6	6	Volts
Storage Temperature	T_{stg}	-40 to 125	-40 to 125	-40 to 125	°C
Operating Temperature	T_j	-40 to 125	-40 to 125	-40 to 125	°C

Electrical and Thermal Characteristics (for One Chip), T_j = 25°C unless otherwise specified

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Repetitive Off-state Current, Peak	I_{DRM}	V_{DRM} applied, T_j = 125°C	–	–	1.0	mA
Peak On-state Voltage	V_{TM}	T_c = 25°C, I_{TM} = 1.2A	–	–	2.0	Volts
Thermal Resistance						
Junction to Ambient	$R_{th(j-a)}$	–	–	–	120	°C/Watt
Gate — Parameters						
Gate Current to Trigger II	I_{RGT}I	T_j = 25°C, V_D = 6V	–	–	5.0	mA
Gate Current to Trigger III	I_{RGT}III	R_L = 6Ω, R_G = 330Ω	–	–	5.0	mA
Gate Voltage to Trigger II	V_{RGT}I	T_j = 25°C, V_D = 6V	–	–	2.0	Volts
Gate Voltage to Trigger III	V_{RGT}III	R_L = 6Ω, R_G = 330Ω	–	–	2.0	Volts
Non-triggering Gate Voltage	V_{GD}	T_j = 125°C, V_D = 1/2 V_{DRM}	0.1	–	–	Volts
Critical Rate-of-Rise of Commutating Off-state Voltage	$(dv/dt)_c$	T_j = 125°C $(dv/dt)_c$ = -0.4A/ms, V_D = 400V	0.5			V/µs