



COMUS

TOWARD



Part Number: AC38S-Q

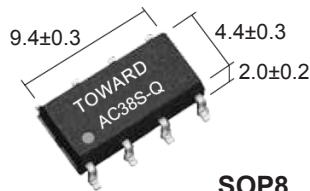
AEC-Q101 Certified - 2 Form A - PhotoDMOS Relays

Product Data Sheet

AEC-Q101

600 VOLTS

PICTURE



SOP8

Drawings not to scale.
All dimensions in mm nominal. Pitch: 2.54 mm

✓ **RoHS Compliant**

FEATURES

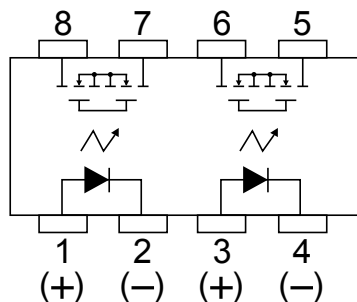
- **TOWARD** PhotoDMOS Relays
- AEC-Q101 Certification for Automotive Applications
- 600 Volt, 70 mA
- On-Resistance 40 Ω (Typical)
- I/O Breakdown Voltage: SOP 1500 Vrms Min.
- Max LED Current 3.0 mA
- Tape and Reel, add R1 (Example: AC38S-Q-R1)

PART IDENTIFICATION

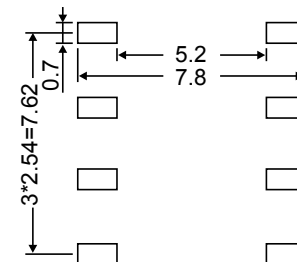
	SOP TYPE	QUANTITY
AC38S-Q	Tape & Reel	Tube 50
	Feed direction: Pin No. 5, 6, 7, 8	Tape 1000
	AC38S-Q-R1	

CIRCUIT DIAGRAM

(TOP VIEW)



1, 3: Anode (LED)
 2, 4: Cathode (LED)
 5, 6, 7, 8: Drain (MOSFET)



• Recommended Soldering Pattern
 For Reflow Soldering

Drawings not to scale.
 All dimensions in mm nominal.

As part of the company policy of continued product improvement, specifications may change without notice. Our sales office will be pleased to help you with the latest information on this product range and the details of our full design and manufacturing service. All products are supplied to our standard conditions of sale unless otherwise agreed in writing.

Phone: (1) 973 777 6900

www.comus-intl.com

Fax: (1) 973 777 8405

Belgium: + 32 (0)12 390400 - Comus Europe Ltd (Assemtech) UK: +44 (0) 1255 862236 - Germany: +49 (0)911 923 15 943 - Netherlands: +31(0)45 54 39 345 - India: +(91) (44) 42023510

©2016 Copyright Comus International, 454 Allwood Road, Clifton NJ 07012, USA

Rev: 0 - Date: Aug/18/2016 - Signature: BR

An ISO 9001 Certified Company

**COMUS****TOWARD****Part Number: AC38S-Q****AEC-Q101 Certified - 2 Form A - PhotoDMOS Relays****Product Data Sheet****AEC-Q101****600 VOLTS**

ABSOLUTE MAXIMUM RATINGS			AMBIENT TEMPERATURE: 25°C
ITEM	SYMBOL	VALUE	
Input	Continuous LED Current	I_F	50 mA
	Peak LED Current	I_{FP}	500 mA
	LED Reverse Voltage	V_R	5 V
	Input Power Dissipation	P_{In}	75 mW
Output	Load Voltage	V_L	600 V (AC peak or DC)
	Load Current	I_L	70 mA (1Ch) 60 mA (2Ch)
	Peak Load Current (1 ms, 1 shot)	I_{Peak}	200 mA
	Output Power Dissipation	P_{Out}	300 mW (1Ch) 450 mW (2Ch)
Total Power Dissipation		P_T	350 mW (1Ch) 500 mW (2Ch)
I/O Breakdown Voltage		$V_{I/O}$	1500 Vrms Min
Operating Temperature		T_{Opr}	-40°C ~ +105°C
Storage Temperature		T_{Stg}	-40°C ~ +125°C

ELECTRICAL SPECIFICATIONS					AMBIENT TEMPERATURE: 25°C		
ITEM		SYMBOL	MIN	TYP	MAX	UNITS	CONDITIONS
Input	LED Forward Voltage	V _F	0.9	1.17	1.3	V	I _F = 10 mA
	Operation LED Current	I _{F On}		1	5	mA	
	Recovery LED Voltage	V _{F Off}	0.5	1		V	
Output	On-Resistance Drain to Drain	R _{On}		40	60	Ω	I _F = 5 mA, I _L = Rated Current Time to flow is within 1 sec.
	Off-State Leakage Current	I _{Leak}			1	μ A	V _L = 600 V
	Output Capacitance	C _{Out}		47		pF	V _L = 0 V, f = 1 MHz
Transmission	Turn-On Time	T _{On}		0.2	0.5	ms	I _F = 5 mA
	Turn-Off Time	T _{Off}		0.08	0.2	ms	I _L = Rated Current
Coupled	I/O Insulation Resistance	R _{I/O}	10 ⁹			Ω	
	I/O Capacitance	C _{I/O}		1.3		pF	f = 1 MHz

As part of the company policy of continued product improvement, specifications may change without notice. Our sales office will be pleased to help you with the latest information on this product range and the details of our full design and manufacturing service. All products are supplied to our standard conditions of sale unless otherwise agreed in writing.

Phone: (1) 973 777 6900**www.comus-intl.com****Fax: (1) 973 777 8405**

Belgium: + 32 (0)12 390400 - Comus Europe Ltd (Assemtech) UK: +44 (0) 1255 862236 - Germany: +49 (0)911 923 15 943 - Netherlands: +31(0)45 54 39 345 - India: +(91) (44) 42023510

©2016 Copyright Comus International, 454 Allwood Road, Clifton NJ 07012, USA

Rev: 0 - Date: Aug/18/2016 - Signature: BR

An ISO 9001 Certified Company



COMUS

TOWARD



Part Number: AC38S-Q

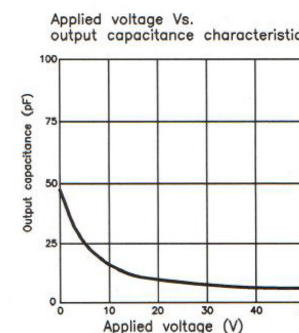
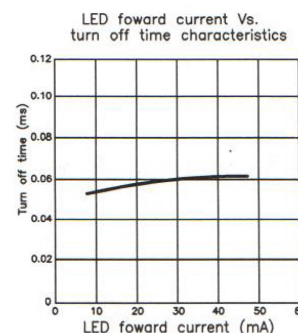
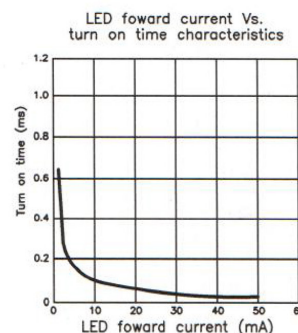
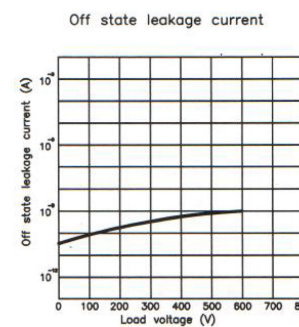
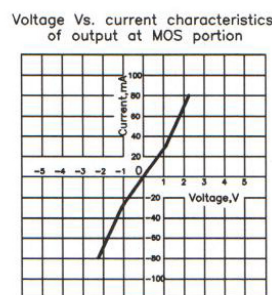
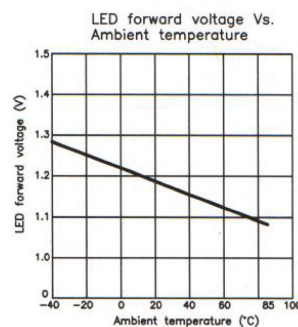
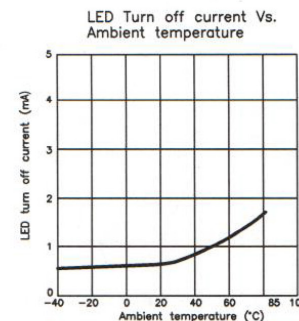
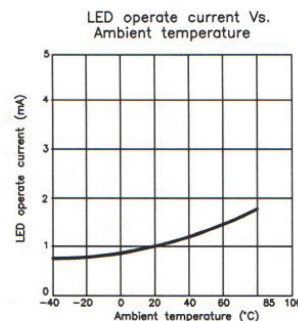
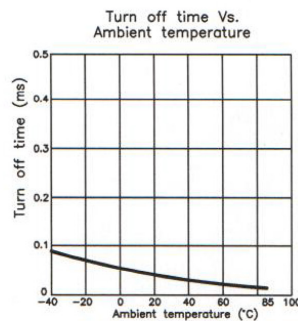
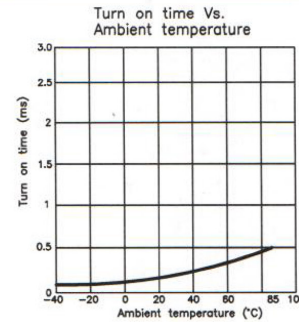
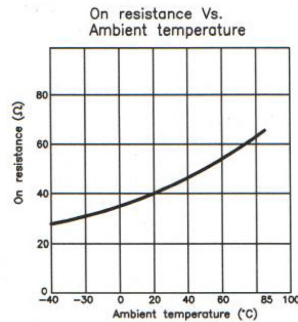
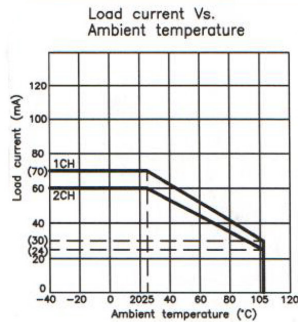
AEC-Q101 Certified - 2 Form A - PhotoDMOS Relays

Product Data Sheet

AEC-Q101

600 VOLTS

GRAPHS



As part of the company policy of continued product improvement, specifications may change without notice. Our sales office will be pleased to help you with the latest information on this product range and the details of our full design and manufacturing service. All products are supplied to our standard conditions of sale unless otherwise agreed in writing.

Phone: (1) 973 777 6900

www.comus-intl.com

Fax: (1) 973 777 8405

Belgium: + 32 (0)12 390400 - Comus Europe Ltd (Assemtech) UK: +44 (0) 1255 862236 - Germany: +49 (0)911 923 15 943 - Netherlands: +31(0)45 54 39 345 - India: +(91) (44) 42023510

©2016 Copyright Comus International, 454 Allwood Road, Clifton NJ 07012, USA

Rev: 0 - Date: Aug/18/2016 - Signature: BR

An ISO 9001 Certified Company