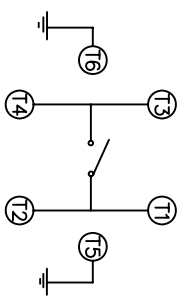
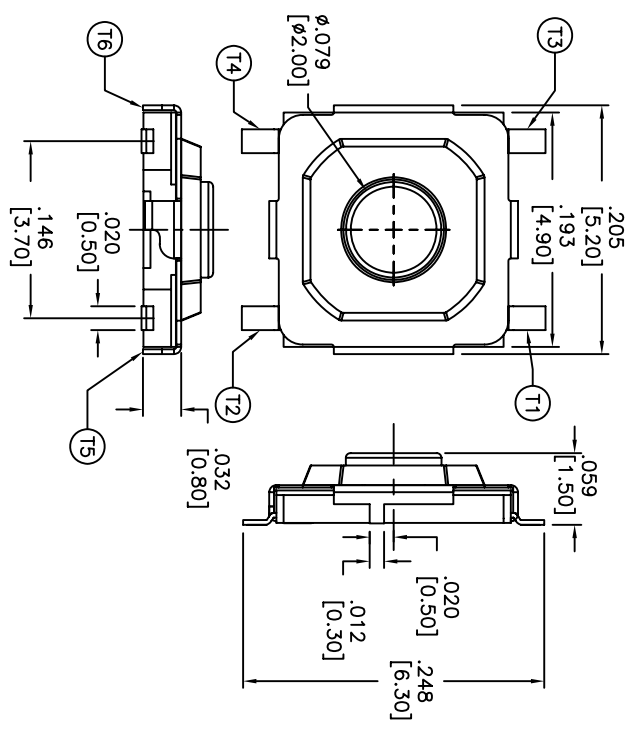
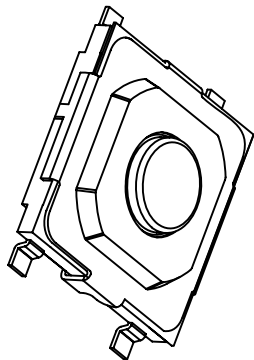
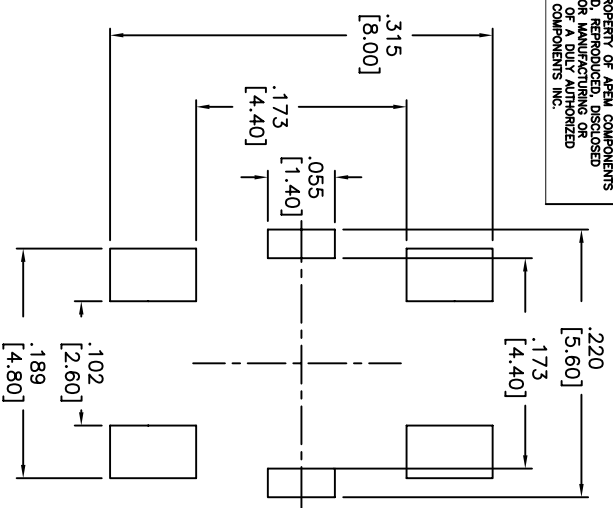


THIS DOCUMENT IS THE PROPERTY OF APDM COMPONENTS AND SHALL NOT BE COPIED, REPRODUCED, DISCLOSED OR USED AS THE BASIS FOR MANUFACTURING OR SALE WITHOUT PERMISSION OF A DULY AUTHORIZED REPRESENTATIVE OF APDM COMPONENTS INC.

ATMG53\*V\*  
 OPERATION FORCE: \_\_\_\_\_  
 3=160gf  
 4=260gf  
 PACKAGE STYLE:  
 T/R=TAPE AND REEL  
 LEAD FREE



CIRCUIT DIAGRAM

DATE	SYM	REVISION RECORD	DWN.	CK.
11/05	B	ECO# 495	CD	

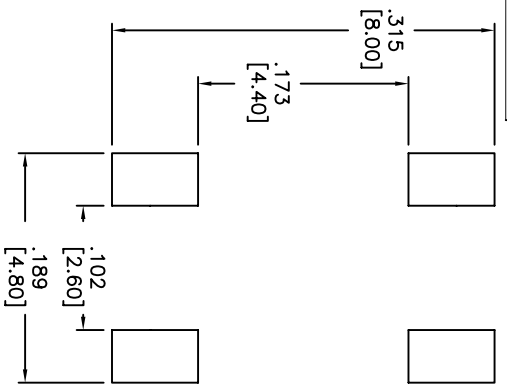
DESCRIPTION: MINIATURE MACHANICAL CONTACT SWITCH WITH SURFACE MOUNT TERMINALS AND GROUNDING TERMINALS.  
 SPECIFICATIONS:  
 STROKE: .010  $\pm$ .008 [0.25  $\pm$ 0.20]  
 OPERATION TEMPERATURE RANGE: -25°C TO +70°C  
 STORAGE TEMPERATURE RANGE: -30°C TO +80°C  
 VIBRATION TEST: PASSES METHOD 201A MIL-STD-202F.  
 SHOCK TEST: 50G PER METHOD 213B MIL-STD202F.  
 ELECTRICAL LIFE: 1,000,000 CYCLES MIN FOR 160gf.  
 200,000 CYCLES MIN FOR 260gf.  
 RATING: 50mA, 12VDC.  
 CONTACT RESISTANCE: 100mΩ MAX.  
 INSULATION RESISTANCE: 100MΩ MIN. AT 500VDC.  
 DIELECTRIC STRENGTH: 250VAC/1 MINUTE.  
 CONTACT ARRANGEMENT: 1POLE 1 THROW.  
 MATERIALS:  
 COVER: NICKEL SILVER.  
 BASE: HIGH-TEMP. THERMOPLASTIC.  
 COLOR: BLACK.  
 STEM: BRASS WITH NICKEL PLATING  
 CONTACT DISC: STAINLESS STEEL.  
 TERMINAL: BRASS WITH SILVER CLADDING.  
 TAPE: TEFLON  
 SOLDERING:  
 HAND SOLDERING: 30 WATT IRON AT 350°C FOR 5 SEC.  
 VAPOR & REFLOW: 255°C FOR 5 SEC. MAX.  
 NON-WASHABLE  
 LEAD FREE PROCESS COMPATIBLE  
 ROHS COMPLIANT

9A. INSPECT:		63 Neck Rd. 01835 APDM 1000 Industrial Ave. Andover, MA 01810 Tel: 978-372-5554 Fax: 978-372-5554		DRN. CJD BR: _____ CR: _____ PJD
DESIGNER'S OPTICAL DIMENSION	TOLERANCES (UNLESS OTHERWISE SPECIFIED) .XX = ±.02 [0.05] .XXX = ±.008 [0.20] .XXXX = ±.0008 [0.02] ANGLE = 30.5°	SHEET 1 OF 1 SIZE B SCALE 10:1 THIRD ANGLE PROJECTION	TITLE MECHANICAL CONTACT SWITCH	
DO NOT SCALE DIMENSIONS	DATE 08/15/05	DRAWING NO. ATMG53*V*	REV B	

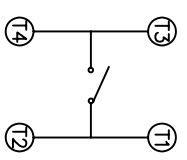
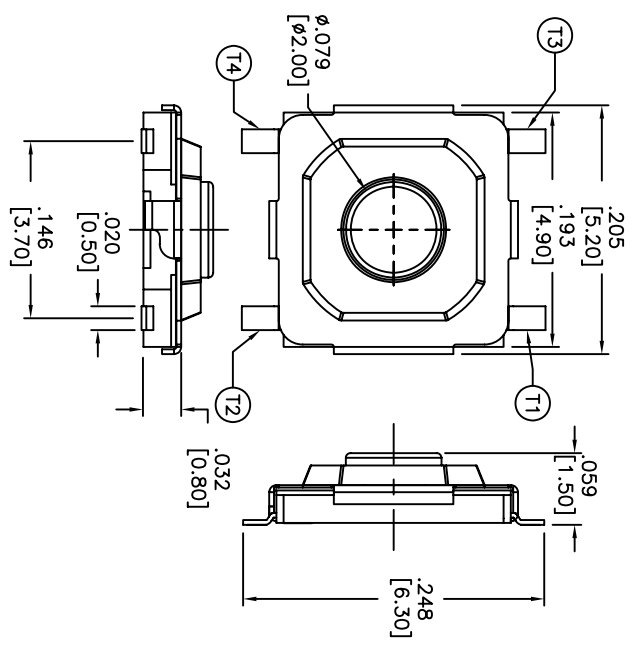
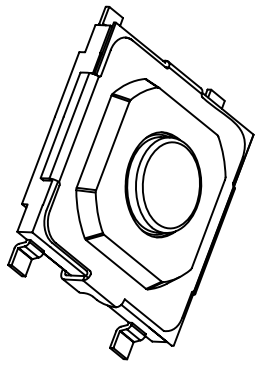
THIS DOCUMENT IS THE PROPERTY OF APEM COMPONENTS AND SHALL NOT BE COPIED, REPRODUCED, DISCLOSED OR USED AS THE BASIS FOR MANUFACTURING OR SALE WITHOUT PERMISSION OF A DULY AUTHORIZED REPRESENTATIVE OF APEM COMPONENTS INC.

OPERATION FORCE: ATM53\*V\*  
 2=100gf  
 3=160gf  
 4=260gf

PACKAGE STYLE:  
 T/R=TAPE AND REEL  
 LEAD FREE



P.C.B. LAYOUT



CIRCUIT DIAGRAM

DATE	SYM	REVISION RECORD	DWN.	CK.

DESCRIPTION: MINIATURE MECHANICAL CONTACT SWITCH SURFACE MOUNT TERMINALS.

SPECIFICATIONS:

STROKE: .010  $\pm$ .004  $\pm$ .006  $\pm$ .001

OPERATION TEMPERATURE RANGE: -25°C TO +70°C

STORAGE TEMPERATURE RANGE: -30°C TO +80°C

VIBRATION TEST: PASSES METHOD 201A MIL-STD-202F.

SHOCK TEST: 50G PER METHOD 213B MIL-STD202F.

ELECTRICAL LIFE: 1,000,000 CYCLES MIN FOR 100gf, 16 200,000 CYCLES MIN FOR 260gf.

RATING: 50mA, 12VDC.

CONTACT RESISTANCE: 100mΩ MAX.

INSULATION RESISTANCE: 100MΩ MIN. AT 500VDC.

DIELECTRIC STRENGTH: 250VAC/1 MINUTE.

CONTACT ARRANGEMENT: 1POLE 1 THROW.

MATERIALS:

COVER: NICKEL SILVER.

BASE: HIGH-TEMP. THERMOPLASTIC.

COLOR: BLACK.

STEM: BRASS WITH NICKEL PLATING

CONTACT DISC: STAINLESS STEEL WITH SILVER PLATING.

TERMINAL: BRASS WITH SILVER CLADDING.

TAPE: TEFLON

SOLDERING:

HAND SOLDERING: 30 WATT IRON AT 350°C FOR 5 SEC VAPOR & REFLOW: 255°C FOR 5 SEC. MAX.

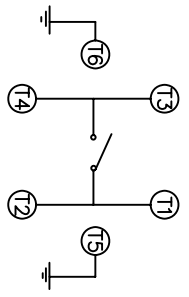
NON-WASHABLE

LEAD FREE PROCESS COMPATIBLE

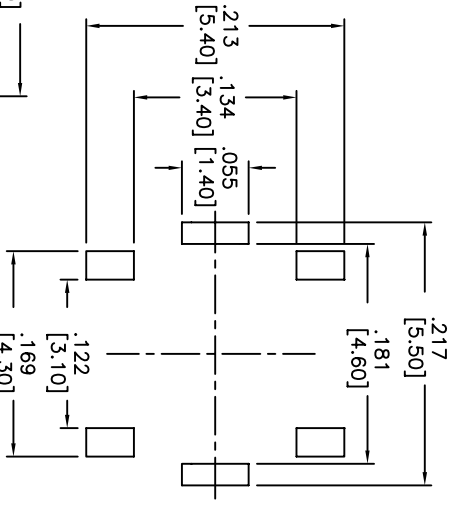
ROHS COMPLIANT

<b>9A. INSPECT:</b> DIMENSIONS: OPTICAL TOLERANCES (UNLESS OTHERWISE SPECIFIED) .XX = ±.02 [0.05] .XXX = ±.008 [0.20] .XXXX = ±.0008 [0.02] ANGLE = 30.5°		63 Nook Rd. Hawthorne, NJ 07035 Phone: 973-772-5554 Fax: 973-772-5554		DPN: CJD BR: PJD
SHEET 1 OF 1 SIZE B SCALE 10:1 THIRD ANGLE PROJECTION	TITLE: MECHANICAL CONTACT SWITCH			
DATE: 4/26/06 DO NOT SCALE DRAWING	DRAWING NO.: ATM53*V*	REV: A	REV: A	

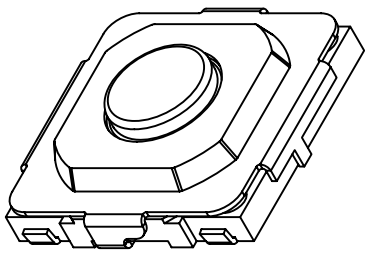
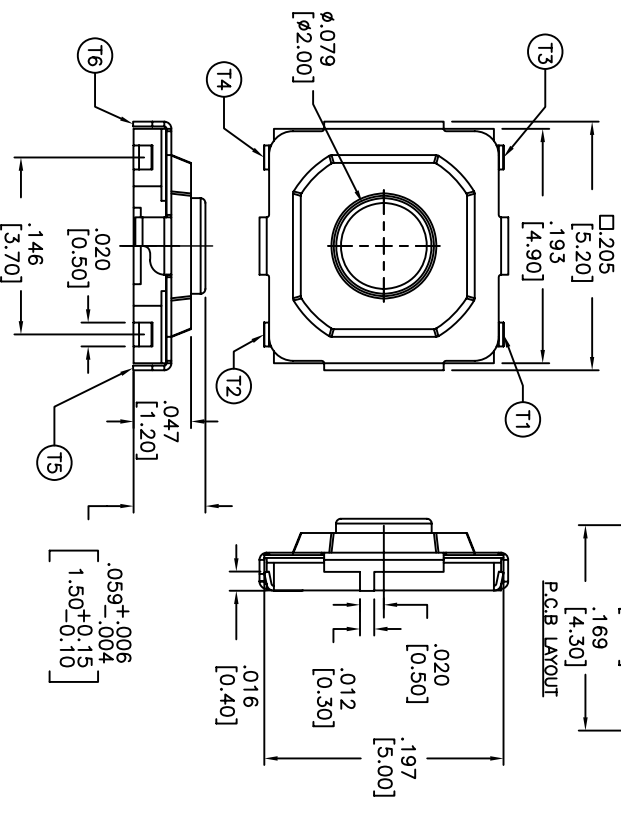
THIS DOCUMENT IS THE PROPERTY OF APEM COMPONENTS AND SHALL NOT BE COPIED, REPRODUCED, DISCLOSED OR SALE WITHOUT PERMISSION OF A DULY AUTHORIZED REPRESENTATIVE OF APEM COMPONENTS INC.



CIRCUIT DIAGRAM



PCB LAYOUT



OPERATION FORCE: ATUG53\*\*V\* PACKAGE STYLE: T/R=TAPE AND REEL  
 3=160gf  
 4=260gf  
 LEAD FREE

DESCRIPTION: MINIATURE MECHANICAL CONTACT SWITCH WITH "S" TYPE SMT AND GROUNDING TERMINALS.

SPECIFICATIONS:

OPERATION TEMPERATURE RANGE: -25°C TO +70°C  
 STORAGE TEMPERATURE RANGE: -30°C TO +80°C  
 VIBRATION TEST: PASSES METHOD 201A  
 MIL-STD-202F.  
 SHOCK TEST: 50G PER METHOD 213B MIL-STD202F.  
 ELECTRICAL LIFE: 1,000,000 CYCLES MIN FOR 160gf.  
 200,000 CYCLES MIN FOR 260gf.

RATING: 50mA, 12VDC.  
 CONTACT RESISTANCE: 100mΩ MAX.  
 INSULATION RESISTANCE: 100MΩ MIN. AT 500VDC.  
 DIELECTRIC STRENGTH: 250VAC/1 MINUTE.  
 STROKE: 0.25 ±0.10mm  
 CONTACT ARRANGEMENT: 1POLE 1 THROW.

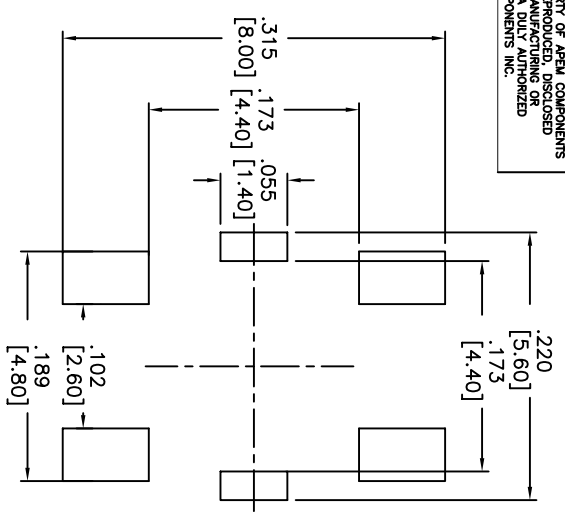
MATERIALS:  
 COVER: NICKEL SILVER.  
 BASE: HIGH-TEMP. THERMOPLASTIC.  
 COLOR: BLACK.  
 STEM: BRASS WITH NICKEL PLATING  
 CONTACT DISC: STAINLESS STEEL.  
 TERMINAL: BRASS WITH SILVER CLADDING.  
 TAPE: TEFLON

SOLDERING:  
 HAND SOLDERING: 30 WATT IRON AT 350°C FOR 5 SEC.  
 IR REFLOW: 225°C MAX.  
 LEAD FREE PROCESS COMPATIBLE  
 ROHS COMPLIANT

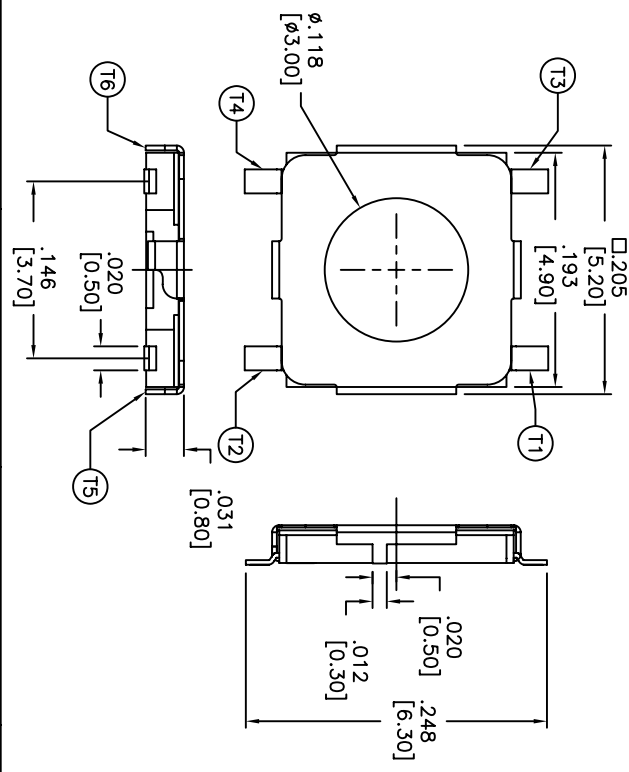
DATE	SYM	REVISION RECORD	DWN.	CK.

<b>Q.A. INSPECT:</b> 		<b>DESIGNER'S INITIAL:</b> DIMENSION		<b>DRN. CJD</b>	
<b>TOLERANCES (UNLESS OTHERWISE SPECIFIED)</b> .XX = ±0.005 .XXX = ±0.008 .XXXX = ±0.008 ANGLE = 30.5°		<b>APM</b> 63 Neck Rd. Haverhill, MA 01830 Tel: 978-372-5554 Fax: 978-372-5554		<b>BR. BR.</b> <b>OK. PJD</b>	
<b>TITLE</b> MECHANICAL CONTACT SWITCH		<b>SHEET</b> 1 OF 1		<b>SCALE</b> 10:1	
<b>DATE</b> 8/11/05		<b>DRAWING NO.</b> ATUG53*V*		<b>REV</b> A	

THIS DOCUMENT IS THE PROPERTY OF APEM COMPONENTS AND SHALL NOT BE COPIED, REPRODUCED, DISCLOSED OR SALE WITHOUT PERMISSION OF A DULY AUTHORIZED REPRESENTATIVE OF APEM COMPONENTS INC.

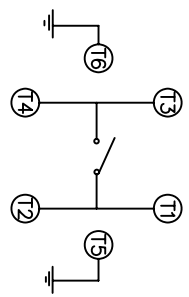
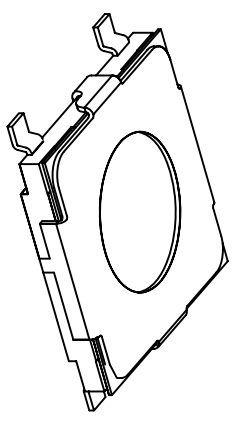


P.C.B. LAYOUT  
UNLESS OTHERWISE SPECIFIED  
ALL P.C. TOLERANCES ARE ±.002 [0.05]



OPERATION FORCE: ATMG52\*V\*  
2=100gf  
3=160gf  
4=260gf

PACKAGE STYLE:  
T/R=TAPE AND REEL  
LEAD FREE



CIRCUIT DIAGRAM

DESCRIPTION: MINIATURE MECHANICAL CONTACT SWITCH WITH SMT, AND GROUNDING TERMINALS.

SPECIFICATIONS:  
OPERATION TEMPERATURE RANGE: -25°C TO +70°C  
STORAGE TEMPERATURE RANGE: -30°C TO +80°C  
VIBRATION TEST: PASSES METHOD 2014 MIL-STD-202F.  
STROKE: .010 ±.005 [0.25 ±.012]  
SHOCK TEST: 50G PER METHOD 213B MIL-STD202F.  
ELECTRICAL LIFE: 1,000,000 CYCLES MIN FOR 100gf AND 160gf.  
200,000 CYCLES MIN FOR 260gf.

RATING: 50mA, 12VDC.  
CONTACT RESISTANCE: 100mΩ MAX.  
INSULATION RESISTANCE: 100MΩ MIN. AT 500VDC.  
DIELECTRIC STRENGTH: 250VAC/1 MINUTE.  
CONTACT ARRANGEMENT: 1POLE 1 THROW.  
MATERIALS:  
COVER: NICKEL SILVER.  
BASE: HIGH-TEMP. THERMOPLASTIC.  
COLOR: BLACK.  
STEM: BRASS WITH NICKEL PLATING  
CONTACT DISC: STAINLESS STEEL WITH SILVER CLADDING.  
TERMINAL: BRASS WITH SILVER PLATING.  
TAPE: TEFLON  
SOLDERING:  
HAND SOLDERING: 30 WATT IRON AT 350°C FOR 5 SEC.  
IR REFLOW: 260°C MAX  
LEAD FREE PROCESS COMPATIBLE  
ROHS COMPLIANT

DATE	SYM	REVISION RECORD	DWN.	CK.

DESIGNER'S INITIAL		DIM. UNITS		P.D.	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		SCALE		THIRD ANGLE PROJECTION	
.XX = ±.02 [0.05]		10:1		—	
.XXX = ±.0008 [0.20]					
.XXXX = ±.0008 [0.20]					
ANGLE = 30.5°					
DO NOT SCALE	DATE	DRAWING NO.	REV		
	8/15/05	ATMG52*V*	A		

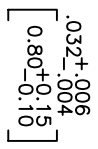
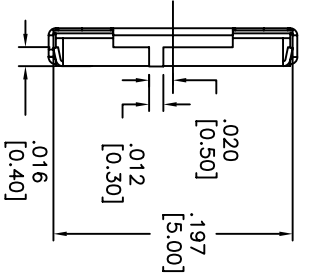
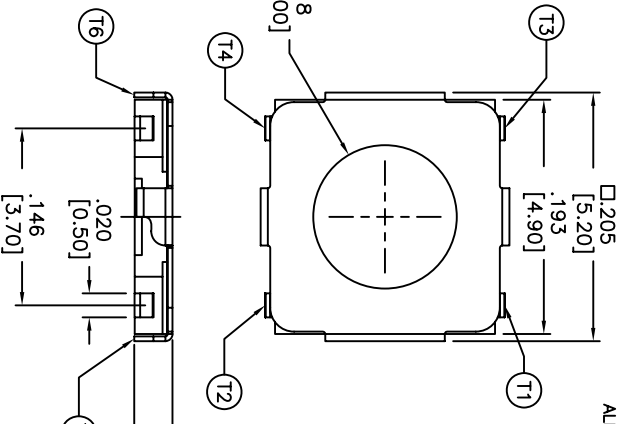
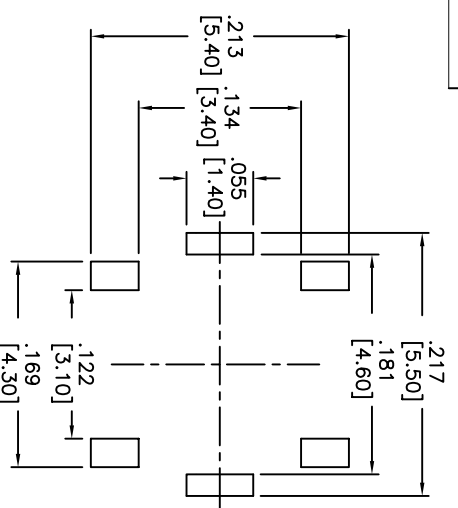


63 Neck Rd. 01835  
Haverhill, MA 01835  
Tel: 978-372-5554  
Fax: 978-372-5554

1 2 3 4 5 6 7 8

A B C D E

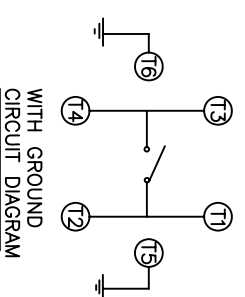
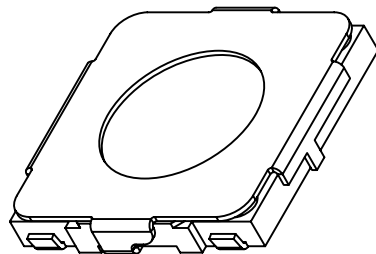
THIS DOCUMENT IS THE PROPERTY OF APEN COMPONENTS AND SHALL NOT BE COPIED, REPRODUCED, DISCLOSED OR USED AS THE BASIS FOR MANUFACTURING OR SALE WITHOUT PERMISSION OF A DULY AUTHORIZED REPRESENTATIVE OF APEN COMPONENTS INC.



P.C.B LAYOUT  
UNLESS OTHERWISE SPECIFIED  
ALL P.C. TOLERANCES ARE ±.002 [0.05]

OPERATION FORCE: ATUG52\*\*V\*  
2=100gf  
3=160gf  
4=260gf

PACKAGE STYLE:  
T/R=TAPE AND REEL  
LEAD FREE



DESCRIPTION: MINIATURE MECHANICAL CONTACT SWITCH WITH J TYPE SMT AND GROUNDING TERMINALS.

SPECIFICATIONS:  
OPERATION TEMPERATURE RANGE: -25°C TO +70°C  
STORAGE TEMPERATURE RANGE: -30°C TO +80°C  
VIBRATION TEST: PASSES METHOD 201A MIL-STD-202F.  
SHOCK TEST: 50G PER METHOD 213B MIL-STD202F.  
ELECTRICAL LIFE: 1,000,000 CYCLES MIN FOR 100gf, 160gf, 200,000 CYCLES MIN FOR 260gf.  
RATING: 50mA, 12VDC.  
CONTACT RESISTANCE: 100mΩ MAX.  
INSULATION RESISTANCE: 100MΩ MIN. AT 500VDC.  
DIELECTRIC STRENGTH: 250VAC/1 MINUTE.  
STROKE: 0.25 ±0.08mm  
CONTACT ARRANGEMENT: 1POLE 1 THROW.

MATERIALS:  
COVER: NICKEL SILVER.  
BASE: HIGH-TEMP. THERMOPLASTIC.  
COLOR: BLACK.  
STEM: BRASS WITH NICKEL PLATING  
CONTACT DISC: STAINLESS STEEL WITH SILVER CLADDING.  
TERMINAL: BRASS WITH SILVER PLATING.  
TAPE: TEFLON

SOLDERING:  
HAND SOLDERING: 30 WATT IRON AT 350°C FOR 5 SEC.  
IR REFLOW: 260°C MAX.  
LEAD FREE PROCESS COMPATIBLE  
ROHS COMPLIANT

DATE	SYM	REVISION RECORD	DWN.	CK.

Q.A. INSPECT:		63 Nark. Rd. 01835 Haverhill, MA 01835 APEN COMPONENTS, INC. Phone: 978-372-5554		DRN. CJD
DESIGNATES CRITICAL DIMENSION	INCH	SHEET	SIZE	SCALE
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	1 OF 1	B	10:1	THIRD ANGLE PROJECTION
.XX=±.02 [0.05]	PJD			
.XXX=±.008 [0.20]				
.XXXX=±.0008 [0.02]				
ANGLE = 30.5°				
DO NOT SCALE DRAWING	DATE	DRAWING NO.	REV	
8/11/06	ATUG52**V*	A		

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: [ocean@oceanchips.ru](mailto:ocean@oceanchips.ru)

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А