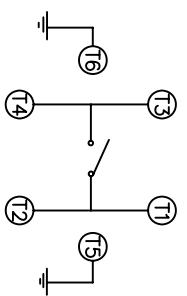
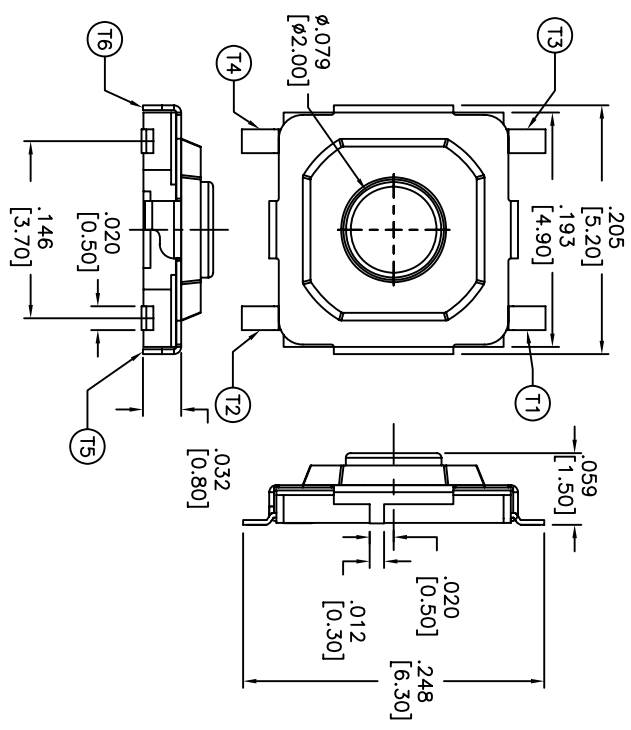
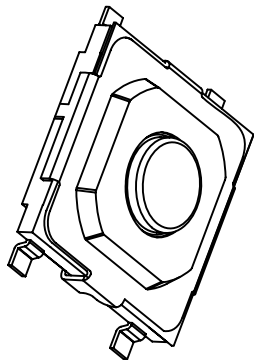
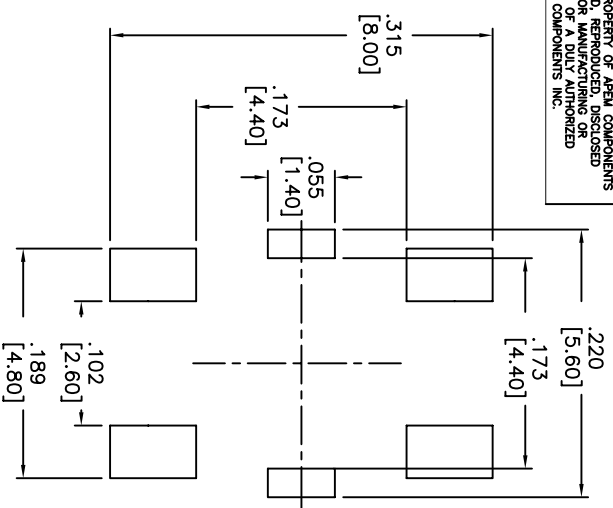


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ATMG53*V*
 OPERATION FORCE: _____
 3=160gf
 4=260gf
 PACKAGE STYLE:
 T/R=TAPE AND REEL
 LEAD FREE



CIRCUIT DIAGRAM

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

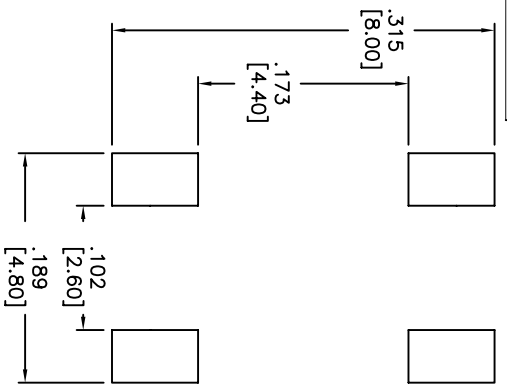
DESCRIPTION: MINIATURE MACHANICAL CONTACT SWITCH WITH SURFACE MOUNT TERMINALS AND GROUNDING TERMINALS.
 SPECIFICATIONS:
 STROKE: .010 \pm .004 [0.25 \pm 0.10]
 OPERATION TEMPERATURE RANGE: -25°C TO +70°C
 STORAGE TEMPERATURE RANGE: -30°C TO +80°C
 VIBRATION TEST: PASSES METHOD 201A MIL-STD-202F.
 SHOCK 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

APDM APDM COMPONENTS, INC. 63 Nork Rd. Torrington, CT 06879 Phone: 860-772-5554 Fax: 860-772-5554		DPN: CJD BR: PJD
DESIGNS: OPTICAL DIMENSION TOLERANCES (UNLESS AS NOTED) .XX=±.02(0.05) .XXX=±.004(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 DRAWING NO. ATMG53*V*	DATE 08/15/05	REV B

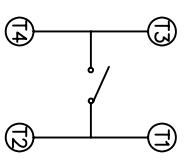
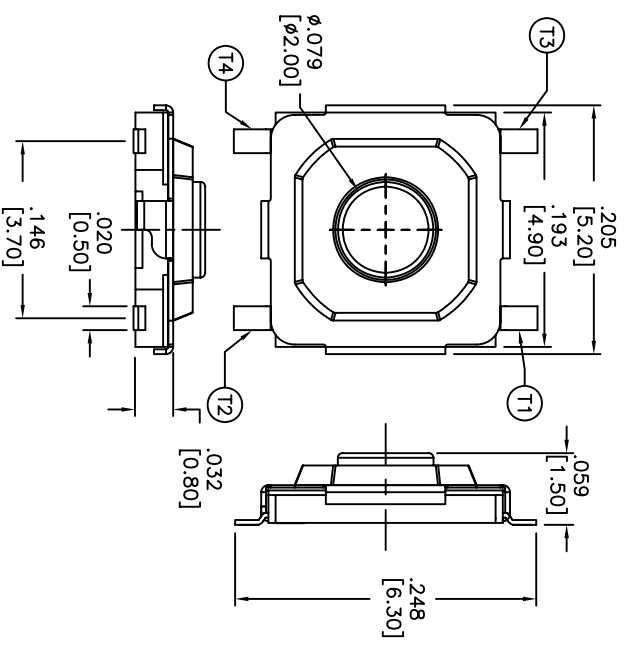
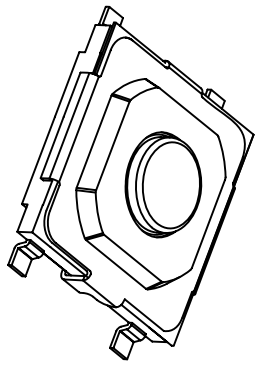
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OPERATION FORCE: ATM53*V*
 2=100gf
 3=160gf
 4=260gf

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.

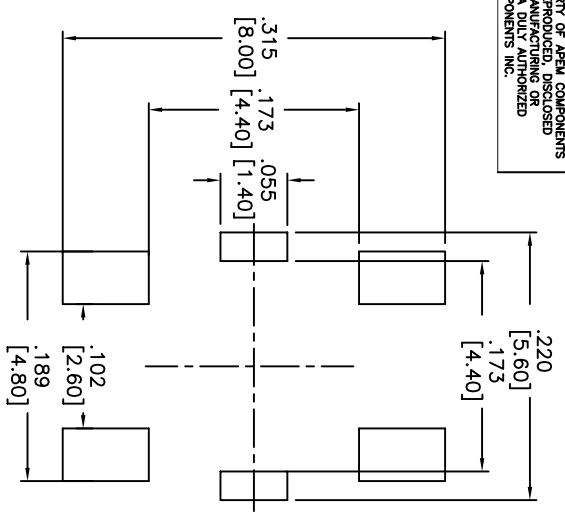
NON-WASHABLE

LEAD FREE PROCESS COMPATIBLE

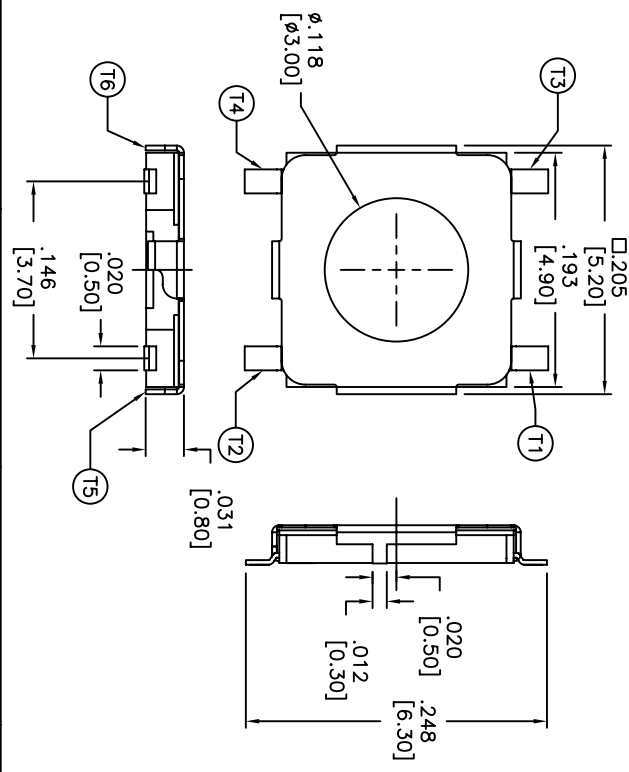
ROHS COMPLIANT

Q.A. INSPECT: 		DESIGNER'S OPTICAL DIMENSION <small>(DRAWN AS SHOWN)</small> .XX=±.02[0.05] .XXX=±.008[0.20] .XXXX=±.0008[0.02] ANGLE = 30.5°		 APEM <small>APERM COMPONENTS, INC.</small> 63 NACK RD. HERRINGHAM, MA 01835 TEL: 978-372-5554 FAX: 978-372-5554		PPN: CJD BR: PJD	
TOLERANCES <small>(DRAWN AS SHOWN)</small> .XX=±.02[0.05] .XXX=±.008[0.20] .XXXX=±.0008[0.02] ANGLE = 30.5°		TITLE MECHANICAL CONTACT SWITCH		SHEET 1 OF 1 SIZE B SCALE 10:1 THIRD ANGLE PROJECTION		DO NOT SCALE DATE 4/26/06 DRAWING NO. ATM53*V* REV A	

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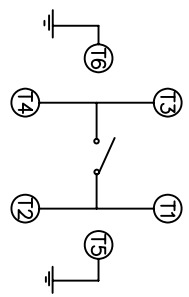
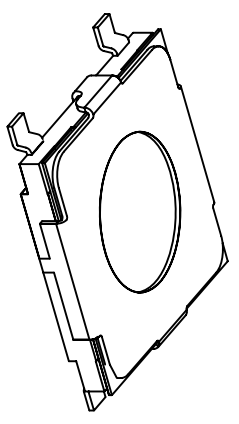


P.C.B. LAYOUT
UNLESS OTHERWISE SPECIFIED
ALL P.C. TOLERANCES ARE ±.002 [0.05]



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.

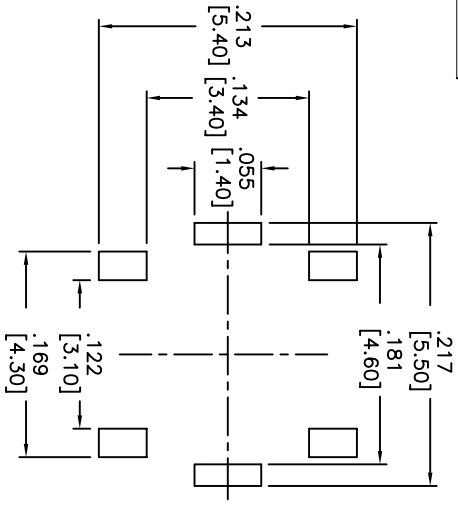
SPECIFICATIONS:
 OPERATION TEMPERATURE RANGE: -25°C TO +70°C
 STORAGE TEMPERATURE RANGE: -30°C TO +80°C
 VIBRATION TEST: PASSES METHOD 2014 MIL-STD-202F.
 STROKE: .010 ±.005 [0.25 ±.012]
 SHOCK TEST: 50G PER METHOD 213B MIL-STD202F.
 ELECTRICAL LIFE: 1,000,000 CYCLES MIN FOR 100gf AND 160gf.
 200,000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

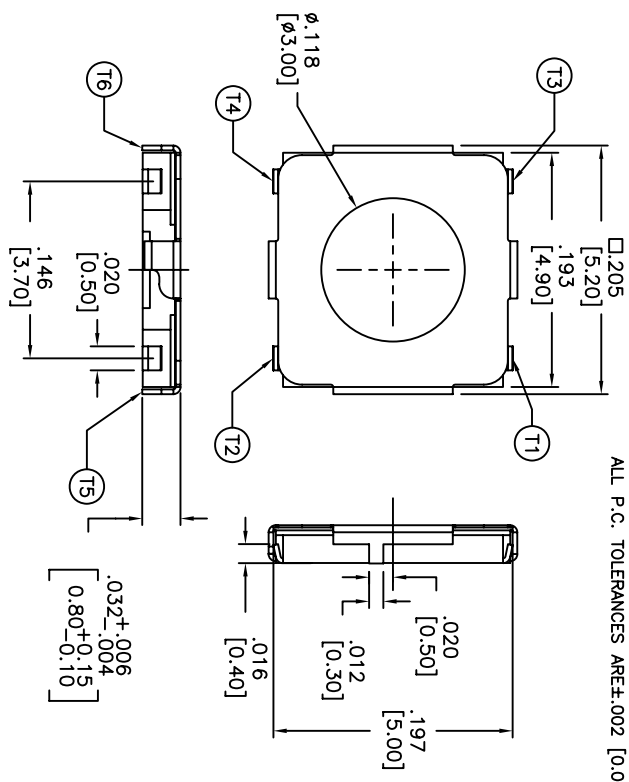
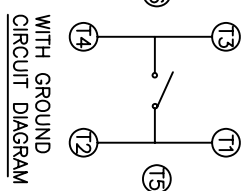
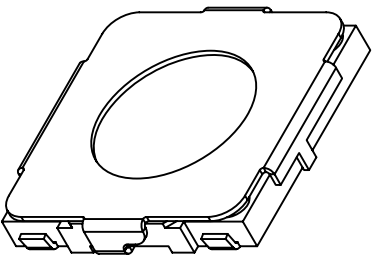
DESIGNATES CRITICAL DIMENSION				63 Neck Rd. 01835 Haverhill, MA Phone: 978-372-5554 Fax: 978-372-5554		PPN: CJD BR: OR: PJD	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		TITLE		SHEET		REV	
.XX = ±.02 [0.05]		MECHANICAL		1 OF 1		A	
.XXX = ±.008 [0.20]		CONTACT SWITCH		B			
.XXXX = ±.0008 [0.02]				10:1			
ANGLE = 40.5°							
DO NOT SCALE		DATE		DRAWING NO.		REV	
		8/15/05		ATMG52*V*		A	

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

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



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

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 ±0.06mm
 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: 		DESIGNER'S INITIAL: _____		DRN. CJD	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) .XX=±.02[0.05] .XXX=±.008[0.20] .XXXX=±.0008[0.02] ANGLE = 40.5°		APEN APEN COMPONENTS, INC. 63 Nank. Rd. Haverhill, MA 01830 Phone: 978-372-3534		BR. BR. OR. PJD	
TITLE: MECHANICAL CONTACT SWITCH		SHEET: 1 OF 1		SCALE: 10:1	
DATE: 8/11/06		DRAWING NO.: ATUG52**V*		REV: A	