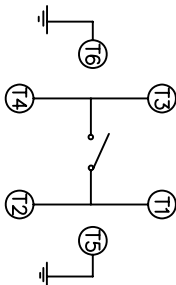
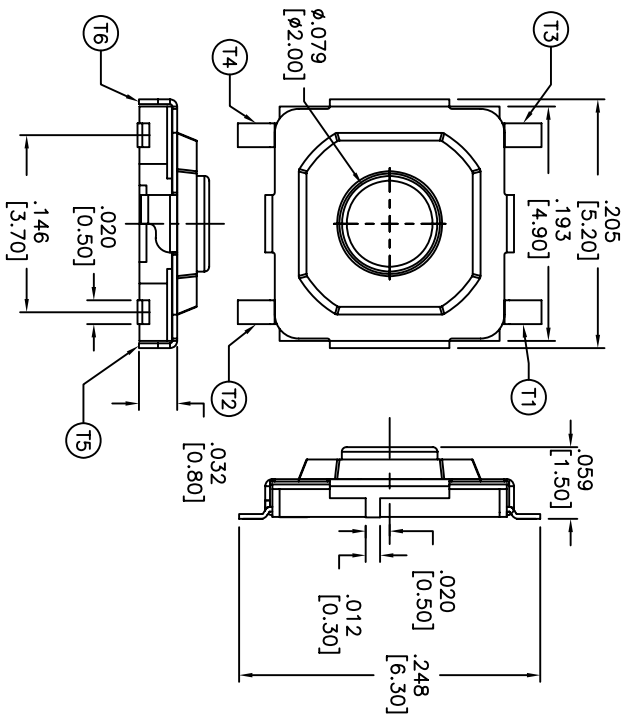
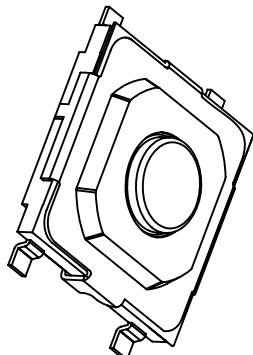
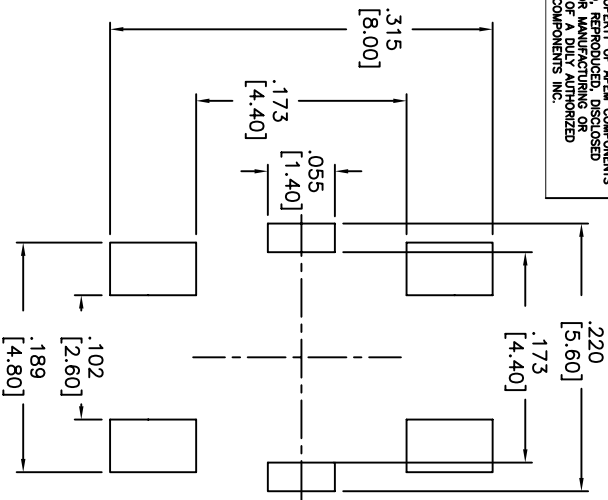


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ATMG53*/V*
OPERATION FORCE: _____
3=160gf
4=260gf
PACKAGE STYLE:
T/R=TAPE AND REEL
LEAD FREE



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 $\pm .010$]

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

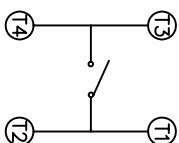
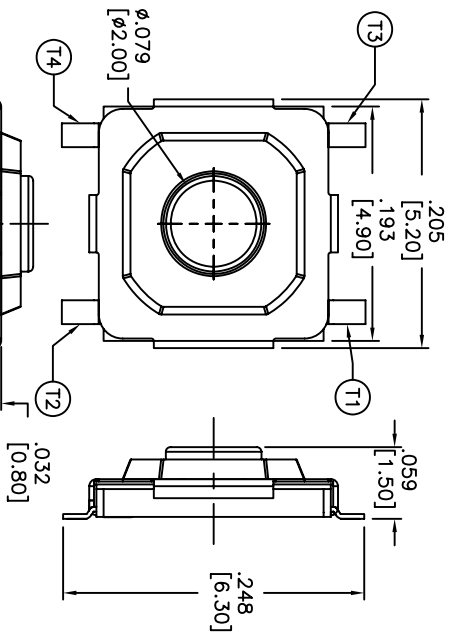
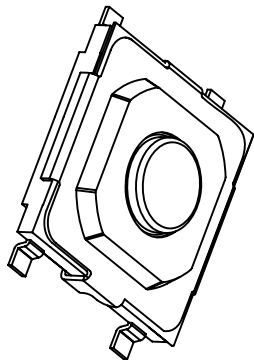
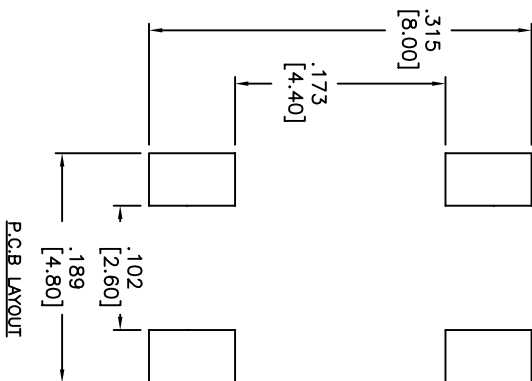
LEAD FREE PROCESS COMPATIBLE

ROHS COMPLANT

9A. INSECT.		63 NICK RD.		DRN.	CJD
DESIGNATES CRITICAL DIMENSION		APERM		BR.	PJD
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		1 OF 1		THIRD ANGLE PROJECTION	
.XX=±.02[0.05]		SIZE		SCALE	
.XX=±.004[0.20]		B		10:1	
.XXX=±.0008[0.02]		TITLE		MECHANICAL CONTACT SWITCH	
ANGLE = 10.5°		DATE		DRAWING NO.	
DO NOT SCALE DRAWING		08/15/05		ATMG53*V*	
				REV	
				B	

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ATM53*V/*
PACKAGE STYLE:
2=100gf
3=160gf
4=260gf
T/R=TAPE AND REEL
LEAD FREE



CIRCUIT DIAGRAM

DESCRIPTION: MINIATURE MECHANICAL CONTACT SWITCH
SURFACE MOUNT TERMINALS.

SPECIFICATIONS:

STROKE: .010 $\pm .004$ [0.25 $\pm .01$]
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

DATE	SYM	REVISION RECORD	DWN.	CK.

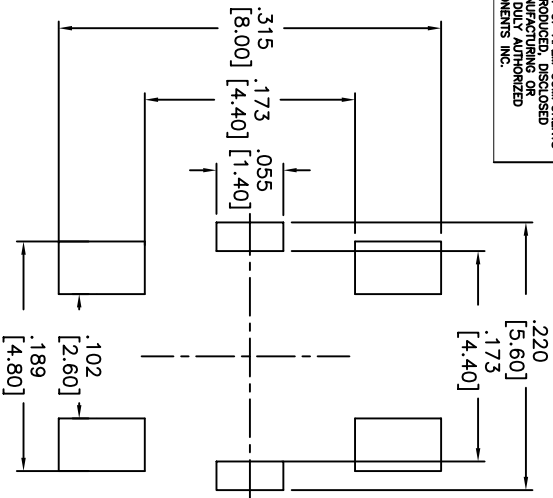
9A. INSECT.		63 Neck Rd.		DIN. CJD	
DESIGNATES OPTICAL		Haverhill, MA 01830		BR.	
DIMENSION		APEM		PJD	
TOLERANCES		1 OF 1		SIZE	
(UNLESS OTHERWISE SPECIFIED)		B		SCALE	
.XX±.XX(0.05)		10:1		THIRD ANGLE PROJECTION	
.XXX±.XXX(0.20)					
.XXXX±.XXXX(0.02)					
ANGLE = 10.5°					
DO NOT SCALE		DATE		DRAWING NO.	
DRAWING		4/26/06		ATM53*V*	
				REV	
				A	

MECHANICAL CONTACT SWITCH

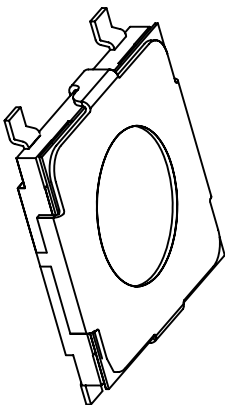


QA INSPECT.		 APM APEX PROJECT MANAGEMENT, LLC 83 N. HOLL RD. HOUSTON, TX 110185 Tel: 978-372-1802 Fax: 978-372-3834		DRN.	CJD
DESIGNATE CRITICAL DIMENSION				BY:	
TOLERANCES (except as noted)		1 OF 1		CNK.	PJD
.XX ± .02 [0.05] .XX ± .004 [0.20] .XX ± .0006 [0.02]		SIZE B			
ANGLE = ±0.5°		SCALE 10:1		THIRD ANGLE	
DO NOT SCALE DRAWING		MECHANICAL CONTACT SWITCH			
DATE 8/11/05		DRAWING NO. ATJG53*V*		REV	A

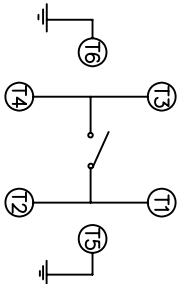
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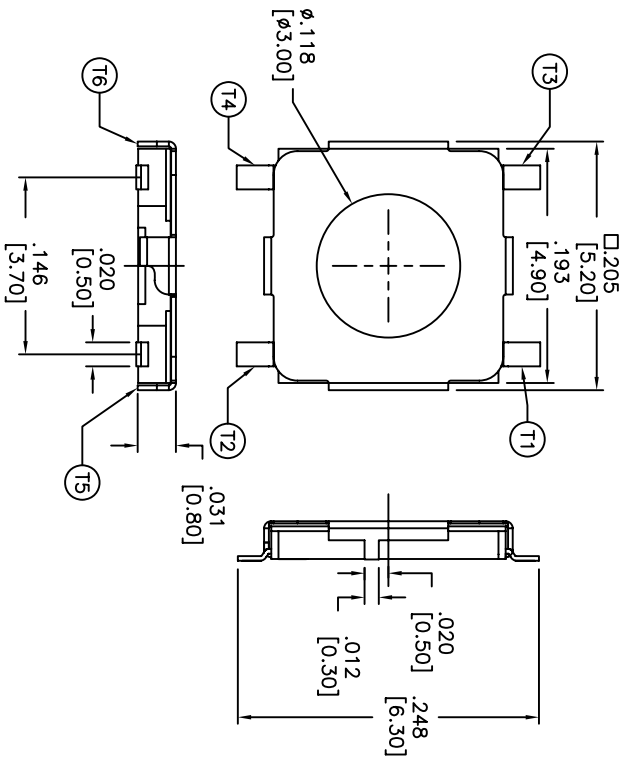
P.C.B. LAYOUT
UNLESS OTHERWISE SPECIFIED
ALL P.C. TOLERANCES ARE $\pm .002$ [0.05]



ATM652*V*
OPERATION FORCE: _____
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 $\pm .005$ [0.25 $\pm .013$]

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.

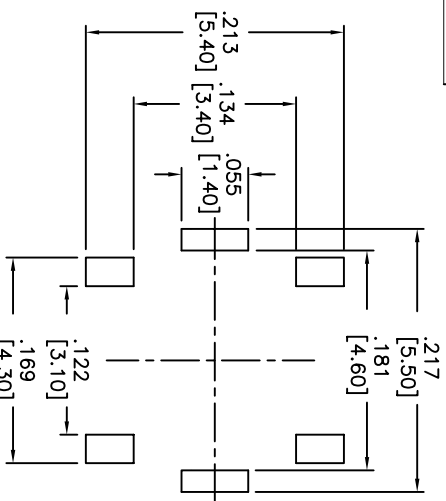
IR REFLOW: 260°C MAX

LEAD FREE PROCESS COMPATIBLE

RoHS COMPLIANT

Q.A. INSPECT:	DESIGNATES CRITICAL DIMENSION	APPEM	63 Neck Rd. Haverhill, MA 01830	PN: CJD
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	INCH	SHEET	SIZE	SCALE
.XX=±.02(0.05)	1 OF 1	B	10:1	THIRD ANGLE PROJECTION
.XXX=±.008(0.20)				
.XXXX=±.0008(0.02)				
ANGLE = 40.5°				
DO NOT SCALE DRAWING	DATE	DRAWING NO.	REV	
	8/15/05	ATMG52*V*	A	

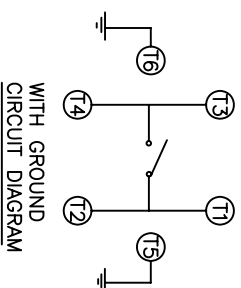
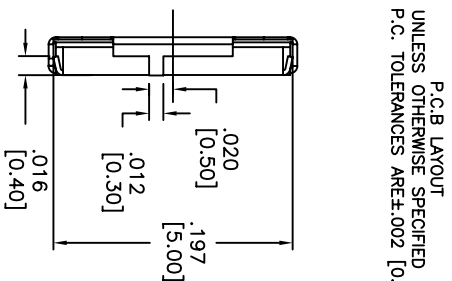
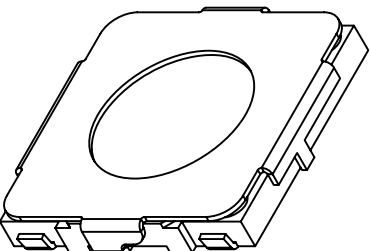
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ATUG52*V*

OPERATION FORCE: 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 $\pm .002$ [0.05]

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

SPECIFICATIONS:

OPERATION TEMPERATURE RANGE: -25°C TO $+70^{\circ}\text{C}$

STORAGE TEMPERATURE RANGE: -30°C TO +80°C
VIBRATION TEST: PACSES METHOD 201A WITH STD 2002F

VIBRATION TEST: 50G PER METHOD 213B MIL-STD202E
SHOCK TEST: 50G PER METHOD 213B MIL-STD202E

ELECTRICAL LIFE: 1,000,000 CYCLES MIN FOR 100qf 160qf.

200,000 CYCLES MIN FOR 260g.

RATING: 50mA, 12VDC.

CONTACT RESISTANCE: 100mΩ MAX.
INSULATION RESISTANCE: 100MΩ MIN. AT 50VDC

INSULATION RESISTANCE: 100M Ω MIN. AT
DIELECTRIC STRENGTH: 250VAC/1 MINUTE

DIELECTRIC STRENGTH: 250VAC / 1 MINUTE.
STROKE: 0.25 +0.10mm

SROKE: 0.23 -0.20mm
CONTACT ARRANGEMENT: 1POLE 1 THROW.

MATERIALS:

COVER: NICKEL SILVER

BASE: HIGH-TEMP. THERMOPLASTIC.

COLOR, BLACK.
STEM, BRASS

SIEM: BRASS WITH NICKEL PLATING
CONTACT DISC: STAINLESS STEEL

CONTROL DISC: SHIMLESS 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

LEAD FREE PROC
ROHS COMPLIANT

REVISION RECORD				
DATE	SYM		DWN.	CK.

Q.A. INSECT △				03 INCH NO. 01835 1x4-7/8-312-1602 7x4-7/8-312-8534		B.M. CUD
DESIGNS, CRITICAL DIMENSION		1 OF 1		SIZE B		C.M. PUD
TOLERANCES (except as noted) .XXX = ±.02(0.05) .XXX = ±.008(0.20) .XXXX = ±.0008(0.02) ANGLE = 40.5°		INCH (MM)		SCALE 10:1		THIRD ANGLE PROJECTION 
DO NOT SCALE DRAWING		DATE 8/11/06		DRAWING NO. A1JG52 **		REV A
		TITLE MECHANICAL DRAWING SWITCH				