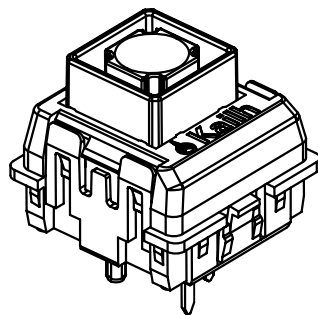
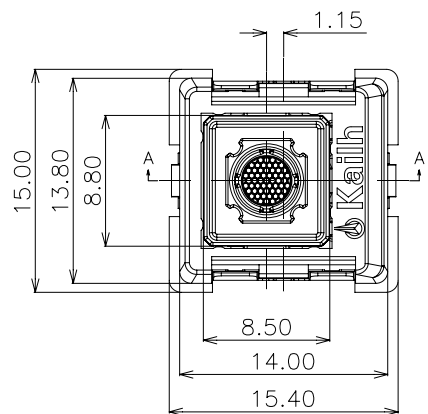
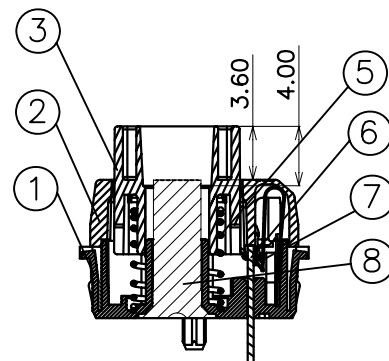
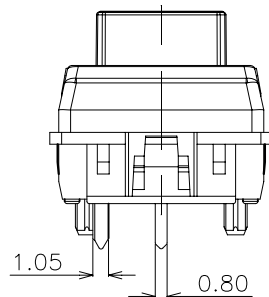
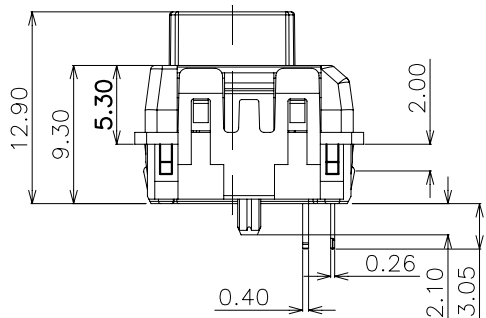


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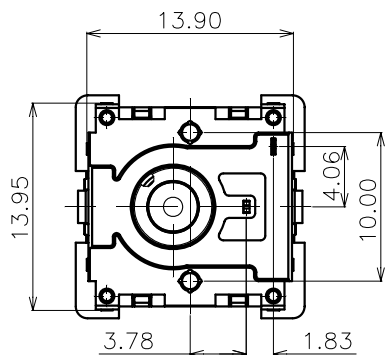
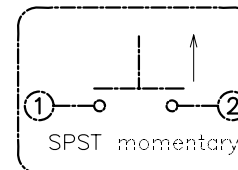
■ Specification :

- 1.Rating:
Voltage :12V AC/DC max.,2V DC min.
Current: 10mA AC/DC max.,10μA DC min.
- 2.Contact Resistance : 200mΩ Max
- 3.Insulation Resistance :100MΩ at 100V
- 4.Withstand Voltage : AC100V(50-60Hz) for 1 minute
- 5.Bounce Time: ≤5msec (at 16 in/sec. actuation speed)
- 6.Operation Force : 45±10gf (35-65gf for total travel)
- 7.Pretravel: 1.6±0.5mm
- 8.Total travel: 3.6±0.3mm
- 9.Operating Life : 50,000,000 Cycles

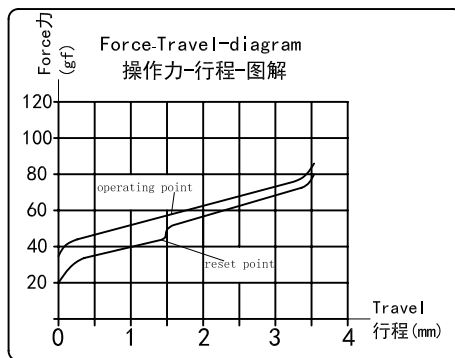


SECTION: A-A

■ SWITCH FUNCTION



linear feel

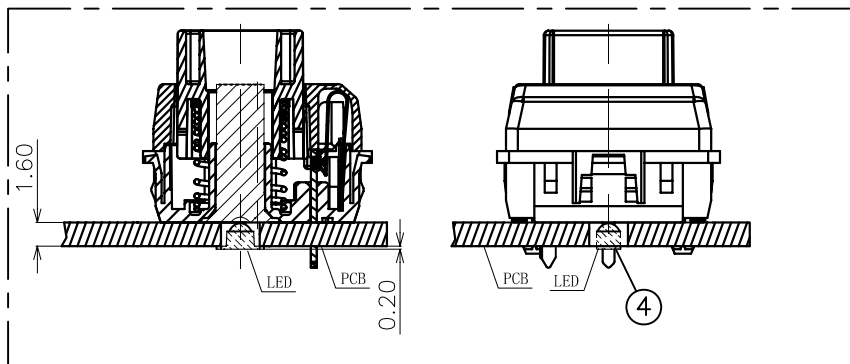


⑧	Light pipe	1	PC	Nature		
⑦	Moving contact	1	Silver Alloy			
⑥	Fixing contact	1	Silver Alloy			
⑤	Spring	1	Stainless Steel			
④	LED	1	See led spec	R.G.B full color		
③	Keystroke	1	POM	Nature	UL94HB	
②	Cover	1	Nylon	Nature		
①	Base	1	Nylon	Black		
ITEM	PART NAME	TER'NO	QTY.	MATERIAL	FINISHING	REMARK

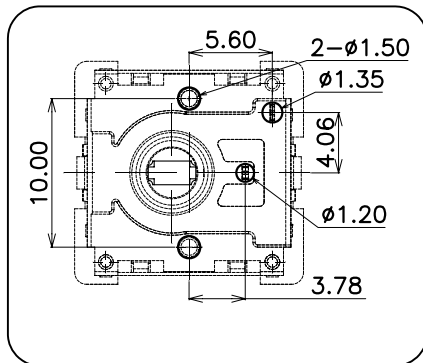
APPROVALS		DATE	DONGGUAN CITY KAIHUA ELECTRONICS CO.,LTD
DRAWN	Chenjun	2014-9-25	
CHECKED			TITLE: PG1593 KeySwitches with LED
APPROVALS			PART NO. PG159301S01
TOLERANCES ARE		30<L ±0.30 10<L≤30 ±0.20 5<L≤10 ±0.15 L≤5 ±0.10	ANGLE UNIT: mm SCALE: 1:1 DRAWING NO. KHA-PG1593-001EN SHEET 1 OF 1

ECN NO.	REV.	DATE.	DESCRIPTION.	CHANGE.	CHECK.	APPRO.
	A		NEW			

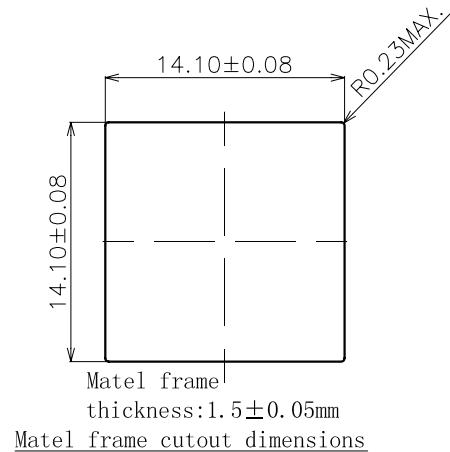
ABIDE BY ROHS



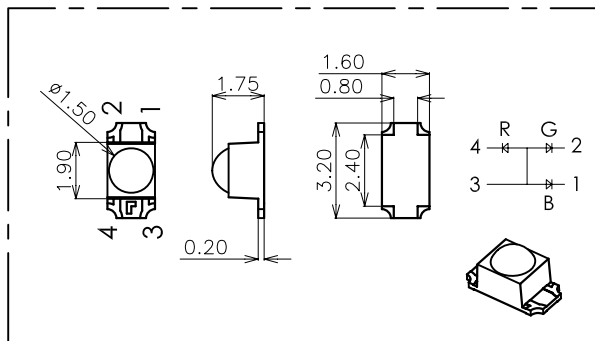
LED Assembly Drawing



PCB Layout (Pattern Side)



Metal frame cutout dimensions



LED Drawing
SCALE 2:1

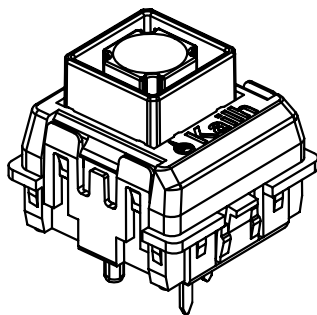
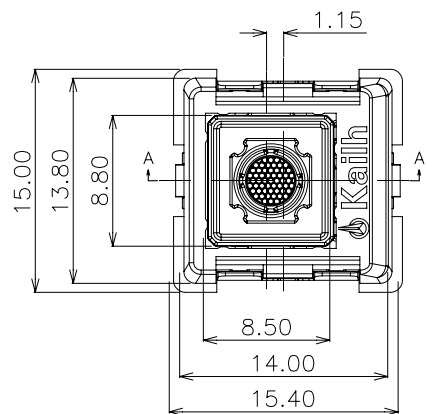
■ R.G.B Full Color NO.(共阳)

Terminal No.	1	2	3	4
Colour				
Red			●	●
Green		●	●	
Blue	●		●	

APPROVALS		DATE	DONGGUAN CITY KAIHUA ELECTRONICS CO.,LTD Kaih		
DRAWN	Chenjun	2016-2-18	TITLE:	PG1593 KeySwitches with LED	
CHECKED			PART NO.	PG159301S01	
APPROVALS			TOLERANCES ARE	ANGLE	UNIT: mm
			30<L ±0.30	±2'	SCALE: 1:1
			10<L≤30 ±0.20		DRAWING NO. KHA-PG1593-001EN
			5<L≤10 ±0.15		SHEET 1 OF 2
			L≤5 ±0.10		

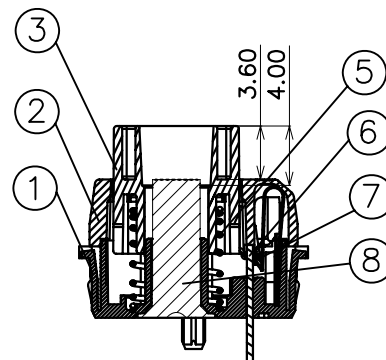
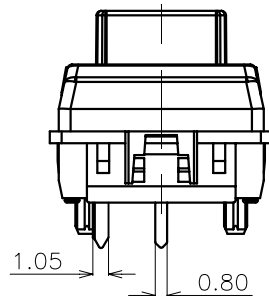
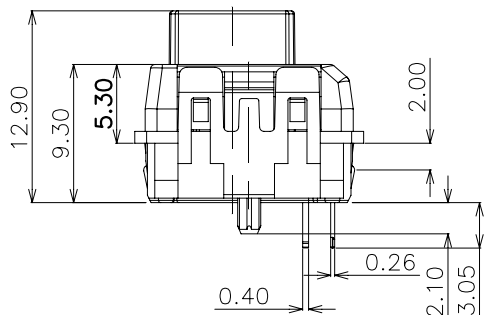
ECN NO.	REV.	DATE.	DESCRIPTION.	CHANGE.	CHECK.	APPRO.
	A		NEW			

ABIDE BY ROHS



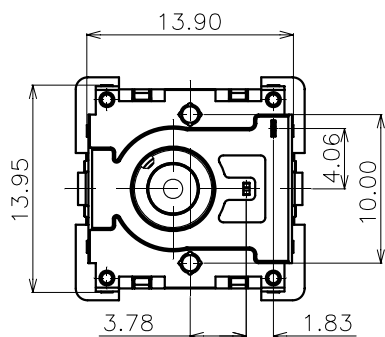
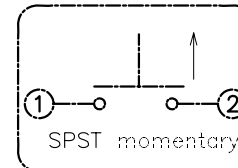
■ Specification :

- 1.Rating:
Voltage :12V AC/DC max.,2V DC min.
Current: 10mA AC/DC max.,10μA DC min.
- 2.Contact Resistance : 200mΩ Max
- 3.Insulation Resistance :100MΩ at 100V
- 4.Withstand Voltage : AC100V(50-60Hz) for 1 minute
- 5.Bounce Time: ≤5msec (at 16 in/sec. actuation speed)
- 6.Operation Force : 45±10gf (35-65gf for total travel)
- 7.Pretravel: 1.6±0.5mm
- 8.Total travel: 3.6±0.3mm
- 9.Operating Life : 50,000,000 Cycles

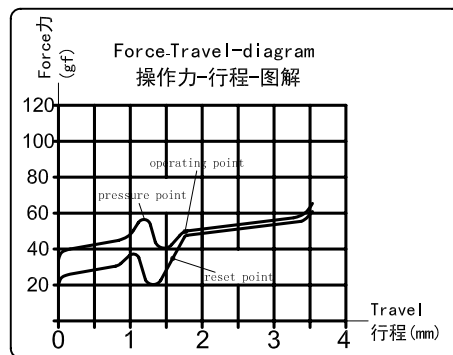


SECTION: A-A

■ SWITCH FUNCTION



Soft Tactile feel

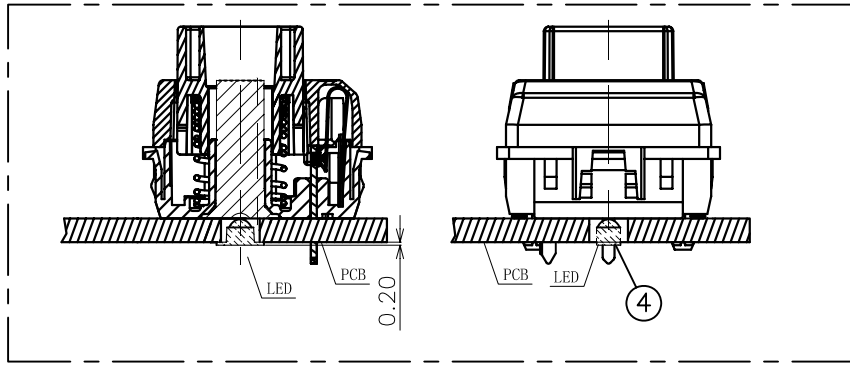


⑧	Light pipe	1	PC	Nature		
⑦	Moving contact	1	Silver Alloy			
⑥	Fixing contact	1	Silver Alloy			
⑤	Spring	1	Stainless Steel			
④	LED	1	See led spec	R.G.B full color		
③	Keystroke	1	POM	Nature	UL94HB	
②	Cover	1	Nylon	Nature		
①	Base	1	Nylon	Black		
ITEM	PART NAME	TER'NO	QTY.	MATERIAL	FINISHING	REMARK

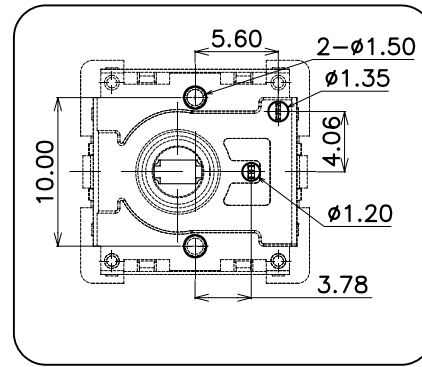
APPROVALS		DATE	DONGGUAN CITY KAIHUA ELECTRONICS CO.,LTD Kailh
DRAWN	Chenjun	2014-9-25	
CHECKED			TITLE: PG1593 KeySwitches with LED
APPROVALS			PART NO. PG159301S02
TOLERANCES ARE		30<L ±0.30 10<L≤30 ±0.20 5<L≤10 ±0.15 L≤5 ±0.10	ANGLE UNIT: mm SCALE: 1:1 DRAWING NO. KHA-PG1593-001EN
ECN NO.	REV. A	DATE.	PROJECT SHEET 1 OF 1 SHEET 1 OF 1

NEW	DESCRIPTION.	CHANGE.	CHECK.	APPRO.
ECN NO.	REV. A	DATE.		

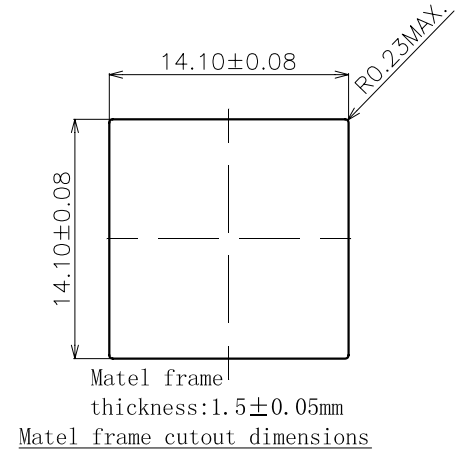
ABIDE BY ROHS



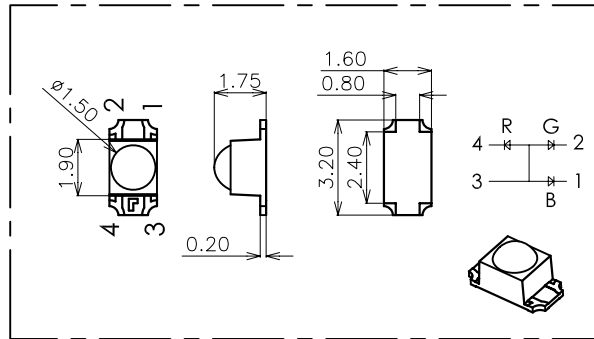
LED Assembly Drawing



PCB Layout (Pattern Side)



Metal frame cutout dimensions



LED Drawing
SCALE 2:1

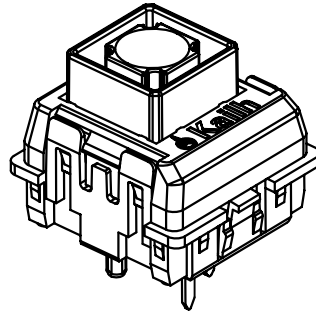
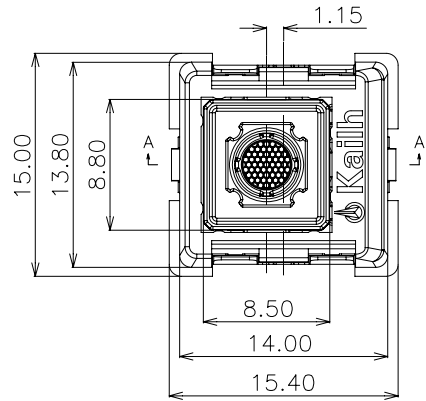
■ R.G.B Full Color NO.(共阳)

Terminal No.	1	2	3	4
Colour				
Red			●	●
Green		●	●	
Blue	●		●	

APPROVALS		DATE	DONGGUAN CITY KAIHUA ELECTRONICS CO.,LTD Kaih		
DRAWN	Chenjun	2016-2-18	TITLE:	PG1593 KeySwitches with LED	
CHECKED			PART NO.	PG159301S02	
APPROVALS			TOLERANCES ARE	ANGLE	UNIT: mm
			30<L ±0.30	±2'	SCALE: 1:1
			10<L≤30 ±0.20		DRAWING NO. KHA-PG1593-001EN
			5<L≤10 ±0.15		SHEET 1 OF 2
			L≤5 ±0.10		

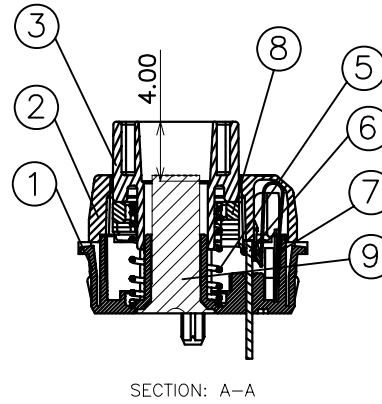
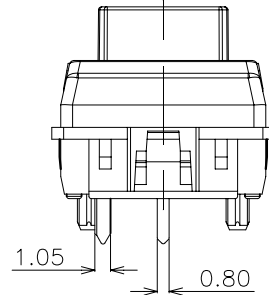
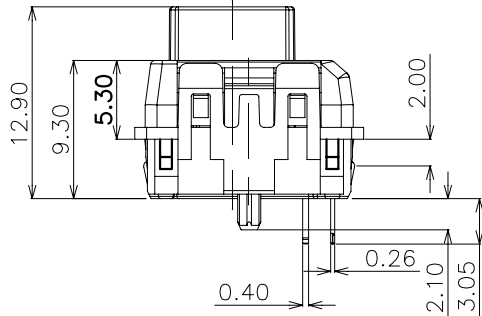
ECN NO.	REV.	DATE.	NEW DESCRIPTION.	CHANGE.	CHECK.	APPRO.
	A					

ABIDE BY ROHS



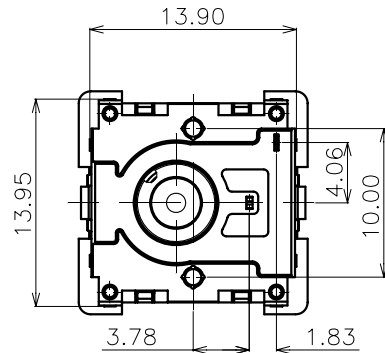
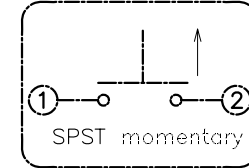
■ Specification :

- 1.Rating:
Voltage :12V AC/DC max.,2V DC min.
Current: 10mA AC/DC max.,10μA DC min.
- 2.Contact Resistance : 200mΩ Max
- 3.Insulation Resistance :100MΩ at 100V
- 4.Withstand Voltage : AC100V(50-60Hz) for 1 minute
- 5.Bounce Time: ≤5msec (at 16 in/sec. actuation speed)
- 6.Operation Force :60±10gf (40-85gf for total travel)
- 7.Pretravel:1.6±0.5mm
- 8.Total travel:3.6±0.3mm
- 9.Operating Life :50,000,000 Cycles

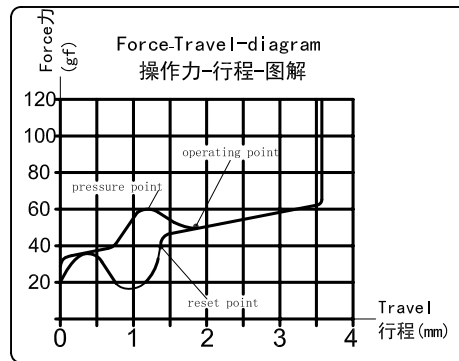


SECTION: A-A

■ SWITCH FUNCTION



Click Tactile feel



⑨	Light pipe	—	1	PC	Nature	—
⑧	Follower	—	1	POM	Nature	—
⑦	Moving contact	—	1	Silver Alloy	—	—
⑥	Fixing contact	—	1	Silver Alloy	—	—
⑤	Spring	—	1	Stainless Steel	—	—
④	LED	—	1	See led spec	R.G.B full color	—
③	Keystroke	—	1	POM	Nature	UL94HB
②	Cover	—	1	Nylon	Nature	—
①	Base	—	1	Nylon	Black	—
ITEM	PART NAME	TER'NO	QTY.	MATERIAL	FINISHING	REMARK

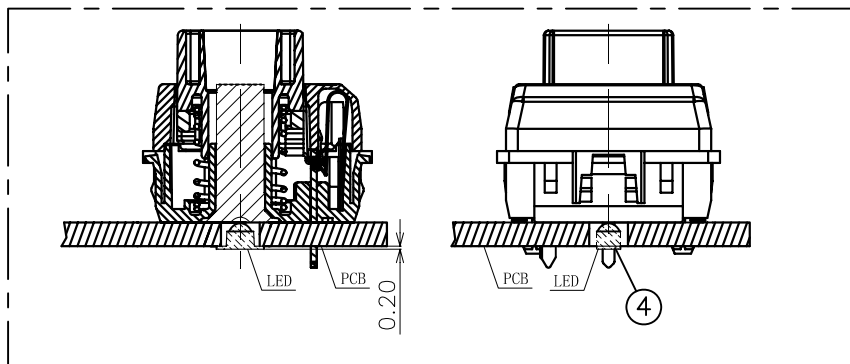
APPROVALS		DATE	DONGGUAN CITY KAIHUA ELECTRONICS CO.,LTD
DRAWN	Chenjun	2016-2-18	

CHECKED		TITLE:	PG1593 KeySwitches with LED
APPROVALS		PART NO.	PG159301S03

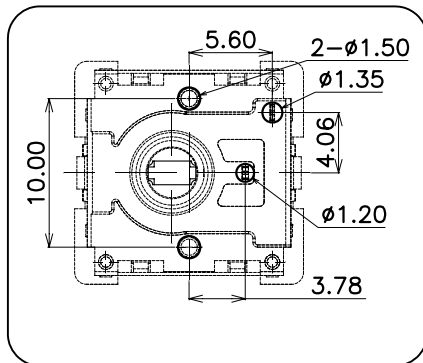
TOLERANCES ARE	30<L	±0.30	ANGLE	UNIT: mm	SCALE: 1:1	PROJ:
	10<L	±0.20				
	5<L	±0.15	±2'	DRAWING NO.	KHA-PG1593-001EN	SHEET 1 OF 1
	L	±0.10				

ECN NO.	REV.	DATE.	NEW DESCRIPTION.	CHANGE.	CHECK.	APPRO.
	A					

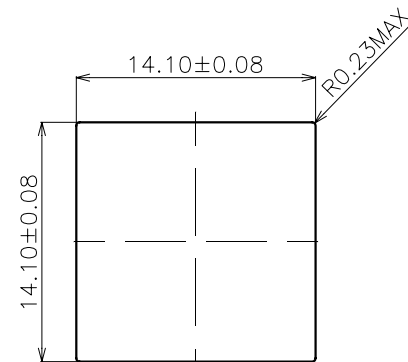
ABIDE BY ROHS



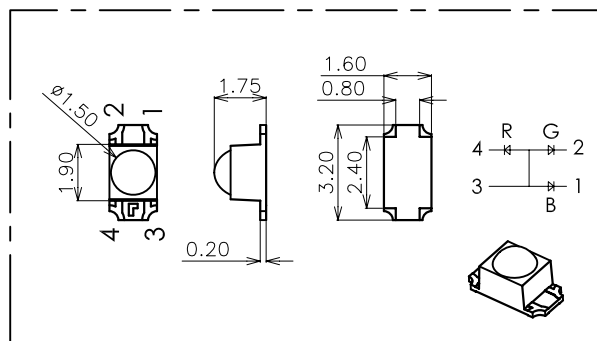
LED Assembly Drawing



PCB Layout (Pattern Side)



Metal frame
thickness: 1.5±0.05mm
Metal frame cutout dimensions



LED Drawing
SCALE 2:1

■ R.G.B Full Color NO.(共阳)

Terminal No.	1	2	3	4
Colour				
Red			●	●
Green		●	●	
Blue	●		●	

APPROVALS		DATE	DONGGUAN CITY KAIHUA ELECTRONICS CO.,LTD Kaih		
DRAWN	Chenjun	2016-2-18	TITLE:	PG1593 KeySwitches with LED	
CHECKED			PART NO.	PG159301S03	
APPROVALS			TOLERANCES ARE	ANGLE	UNIT: mm
			30<L ±0.30	±2'	SCALE: 1:1
			10<L≤30 ±0.20		DRAWING NO. KHA-PG1593-001EN
			5<L≤10 ±0.15		SHEET 1 OF 2
			L≤5 ±0.10		

ECN NO.	REV.	DATE.	NEW DESCRIPTION.	CHANGE.	CHECK.	APPRO.
	A					