

GT Series Sealed Ultraminiature Toggle Switches

Features/Benefits

- Sealed against solder and cleaning process contaminants
- Ultraminiature size, smallest footprint available
- Thru-hole and surface mount models
- High temperature materials (UL 94V-0)
- RoHS compliant and compatible

Typical Applications

- Hand-held telecommunications
- Small instrumentation



Specifications

CONTACT RATING: 0.4 VA max. @ 20 V AC or DC max.

MECHANICAL & ELECTRICAL LIFE: 40,000 make-and-break cycles at full load.

CONTACT RESISTANCE: Below 50 m Ω typ. initial @ 2-4 V DC, 100 mA.

INSULATION RESISTANCE: $10^9 \Omega$ min.

DIELECTRIC STRENGTH: 500 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

PACKAGING: Surface mount switches shipped in anti-static tape and reel packaging per EIA 481-3, see page G-47 for drawings and reel information. Tape and cover strip are conductive for use near statically sensitive components, consult Customer Service Center.

Materials

HOUSING AND BASE: Glass filled nylon 6/6 or 4/6, flame retardant, heat stabilized (UL 94V-0).

ACTUATOR: Glass filled nylon 4/6, flame retardant, heat stabilized (UL 94V-0), with standard internal o-ring seal.

SWITCH SUPPORT: Brass, tin plated.

MOVABLE CONTACTS: Copper alloy, with gold plate over nickel plate.

STATIONARY CONTACTS: Copper alloy, with gold plate over nickel plate.

TERMINALS: Gold.

TERMINAL SEAL: Epoxy. All terminals insert molded.

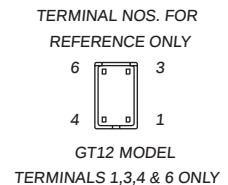
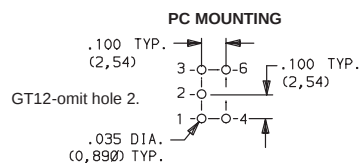
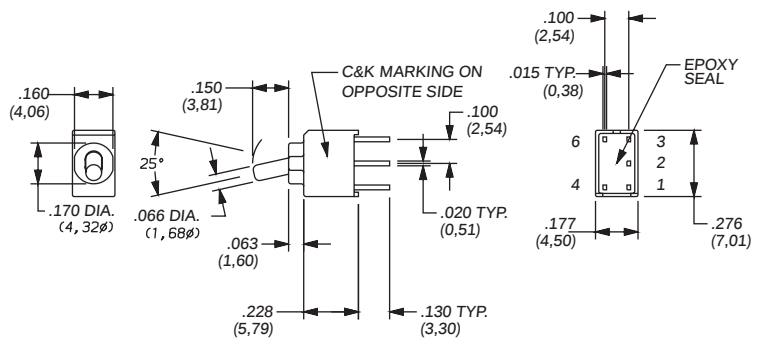
NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

How To Order

Complete part numbers for GT Series Sealed Ultraminiature Toggle Switches are shown on pages G-43 thru G-47.



PART NUMBER	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
GT11MCBE	ON	NONE	ON
GT13MCBE	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic			
SPDT	Note: Pins 4 and 6 not connected		
GT12MCBE	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
SPST	Note: Pins 4 and 6 not connected		

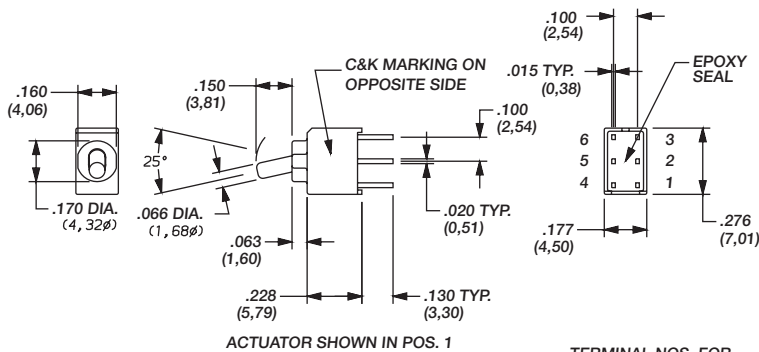


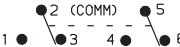
Toggle



Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

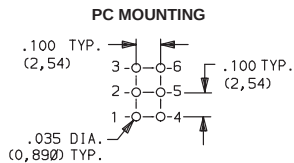
GT Series Sealed Ultraminiature Toggle Switches



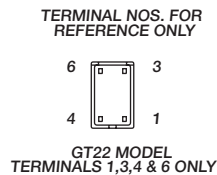
	SWITCH FUNCTION		
	POS.1	POS. 2	POS. 3
PART NUMBER			
GT21MCBE	ON	NONE	ON
GT23MCBE	ON	OFF	ON
Conn. Terms.	2-3, 5-6	OPEN	2-1, 5-4
Schematic			
			
DPDT			
GT22MCBE	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
			
DPST			



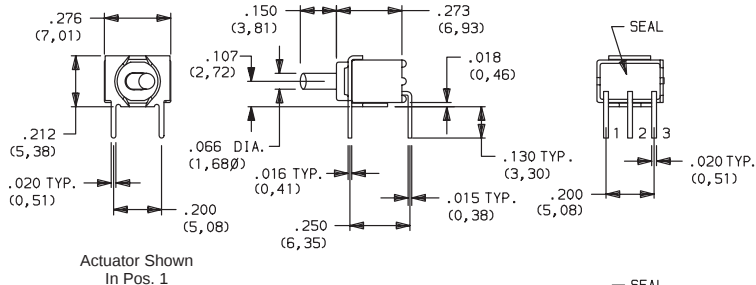
GT21MCBE
DPDT



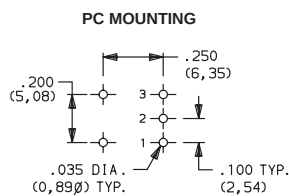
GT22-omit holes 2 & 5.



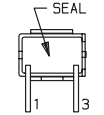
**GT22 MODEL
TERMINALS 1,3,4 & 6 ONLY**



Actuator Shown
In Pos. 1



GT12-omit hole 2.

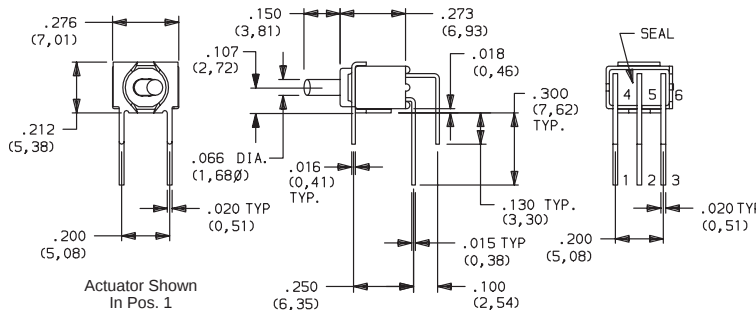


GT12 Models

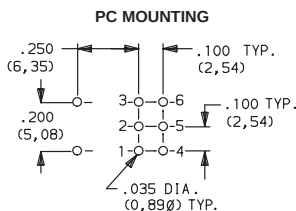
PART NUMBER	SWITCH FUNCTION		
	POS.1	POS. 2	POS. 3
GT11MABE GT13MABE	ON ON	NONE OFF	ON ON
Conn. Terms.	2-3	OPEN	2-1
Schematic			
SPDT			
GT12MABE	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
SPST			



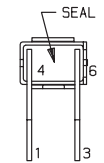
GT11MABE
Horizontal
Actuation
SPDT



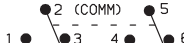
Actuator Shown
In Pos. 1



GT22-omit holes 2 & 5.

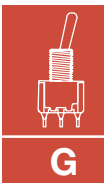


GT22 Models

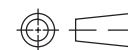
		SWITCH FUNCTION		
		POS.1	POS. 2	POS. 3
PART NUMBER				
GT21MABE GT23MABE		ON ON	NONE OFF	ON ON
P	Conn. Terms.	2-3, 5-6	OPEN	2-1, 5-4
Schematic				
				
DPDT				
GT22MABE		OFF	NONE	ON
Conn. Terms.		OPEN	N/A	3-1, 6-4
Schematic				
				
DPST				



GT21MABE
Horizontal
Actuation
DPDT



Toggle

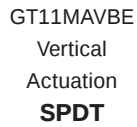


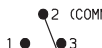
Third Angle Projection

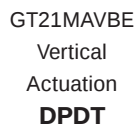
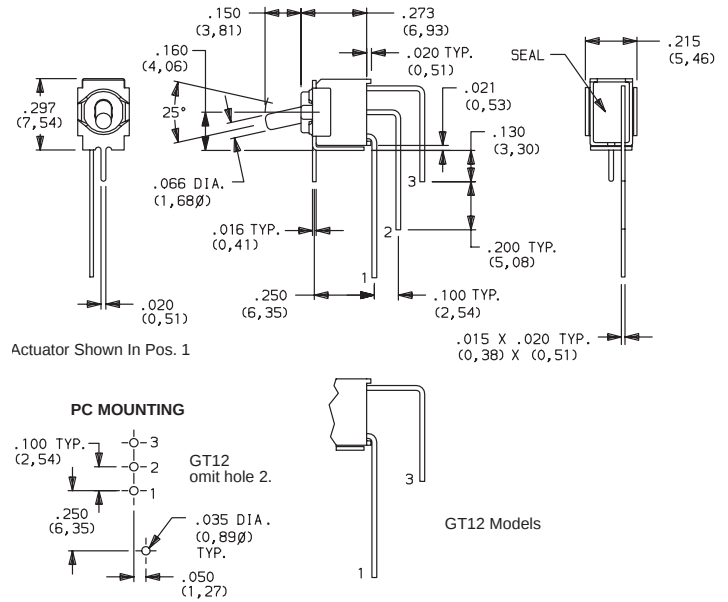
Dimensions are shown: Inch (mm)

Specifications and dimensions subject to change

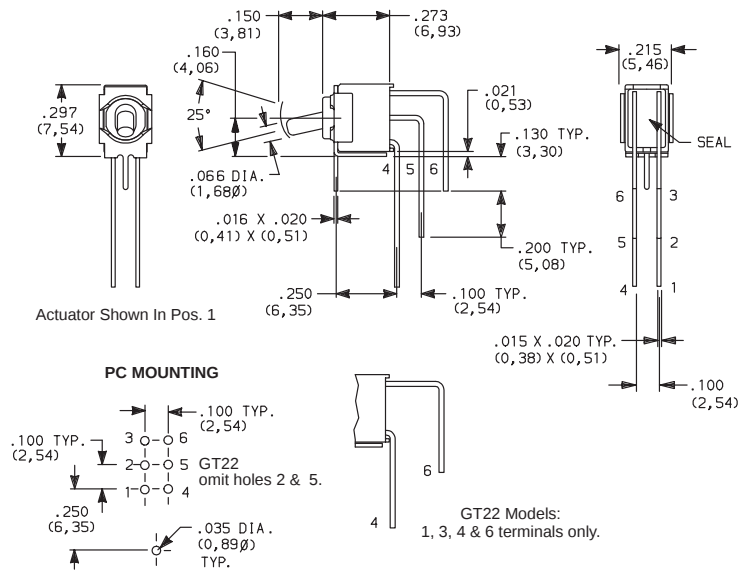
GT Series e Switches



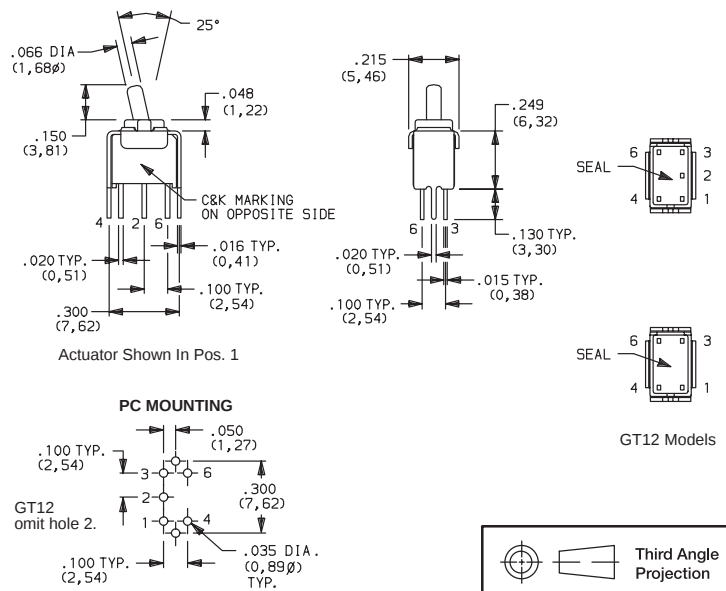
PART NUMBER	SWITCH FUNCTION		
	POS.1	POS. 2	POS. 3
GT11MAVBE GT13MAVBE	ON ON	NONE OFF	ON ON
Conn. Terms.	2-3	OPEN	2-1
Schematic			
SPDT			
GT12MAVBE	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
SPST			



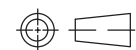
PART NUMBER	SWITCH FUNCTION		
	POS.1	POS. 2	POS. 3
GT21MAVBE GT23MAVBE	ON ON	NONE OFF	ON ON
Conn. Terms.	2-3, 5-6	OPEN	2-1, 5-4
Schematic 			
DPDT			
GT22MAVBE	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1, 6-4
Schematic 			
DPST			



PART NUMBER	SWITCH FUNCTION		
	POS.1	POS. 2	POS. 3
			
GT11MV3BE	ON	NONE	ON
GT13MV3BE	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic 			
SPDT Note: Pins 4 and 6 not connected			
GT12MV3BE	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic 			
SPST Note: Pins 4 and 6 not connected			



Toggle

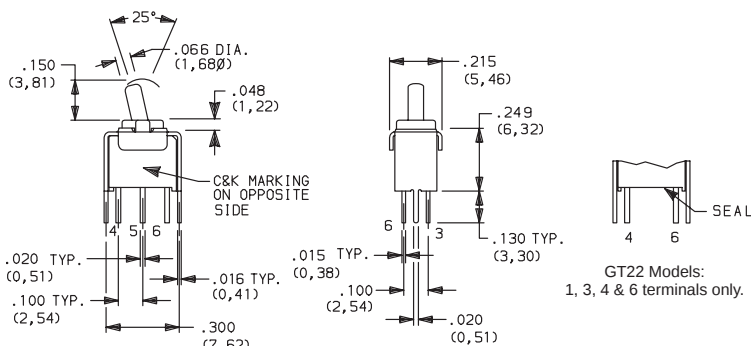


Third Angle Projection

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change



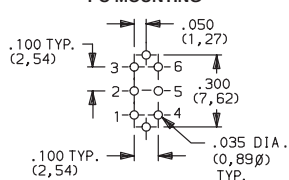
GT21MV3BE
DPDT

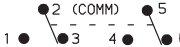


GT22 Models:
1, 3, 4 & 6 terminals only.

Actuator Shown
In Pos. 1

PC MOUNTING

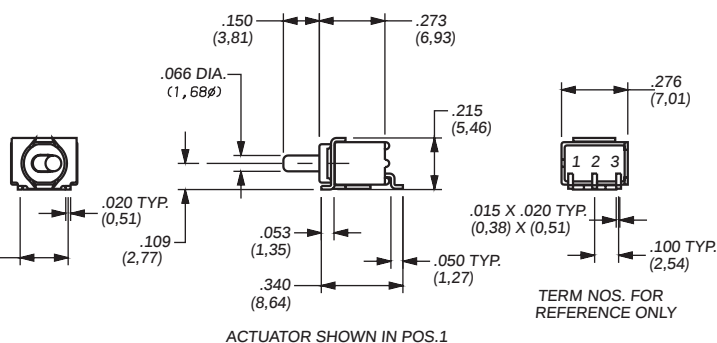


PART NUMBER	SWITCH FUNCTION		
	POS.1	POS. 2	POS. 3
			
GT21MV3BE	ON	NONE	ON
GT23MV3BE	ON	OFF	ON
Conn. Terms.	2-3, 5-6	OPEN	2-1, 5-4
Schematic 			
DPDT			
GT22MV3BE	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1, 6-4
Schematic 			
DPST			

SMT



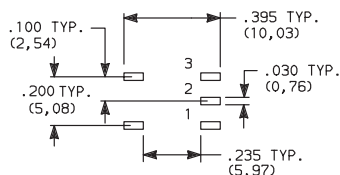
GT11MSABE
Horizontal
Actuation
SPDT



TERM NOS. FOR
REFERENCE ONLY

ACTUATOR SHOWN IN POS.1

PC MOUNTING



EPOXY SEAL

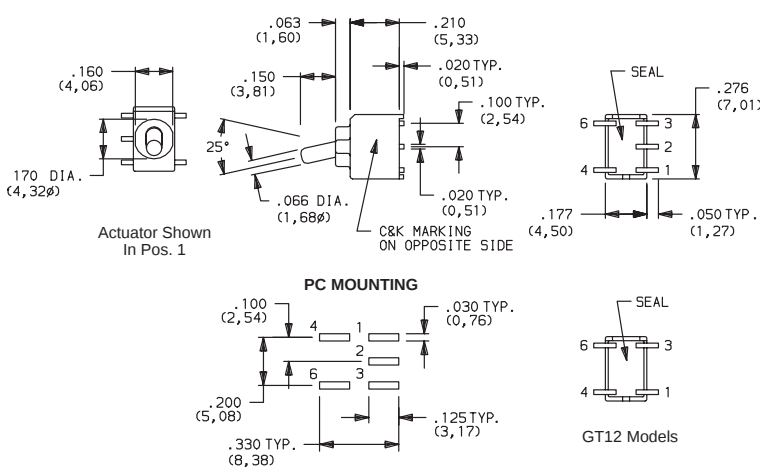
GT12 MODEL
TERMS 1 & 3 ONLY

PART NUMBER	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
GT11MSABETR	ON	NONE	ON
GT13MSABETR	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic			
SPDT			
GT12MSABETR	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
SPST			

Standard with tape & reel packaging, see page G-47.

GT12-omit pad 2.

SMT

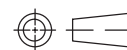
GT11MSCBE
SPDT

GT12 Models

PART NUMBER	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
			
GT11MSCBETR	ON	NONE	ON
GT13MSCBETR	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic 			
SPDT	Note: Pins 4 and 6 not connected		
GT12MSCBETR	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic 			
SPST	Note: Pins 4 and 6 not connected		

Standard with tape & reel packaging, see page G-47.

GT12-omit pad 2.



Third Angle Projection

Dimensions are shown: Inch (mm)

Specifications and dimensions subject to change

GT Series

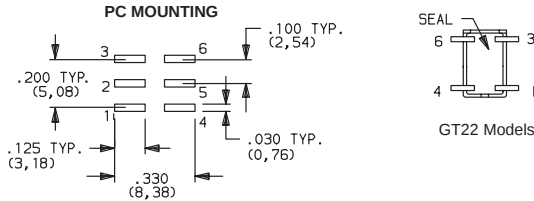
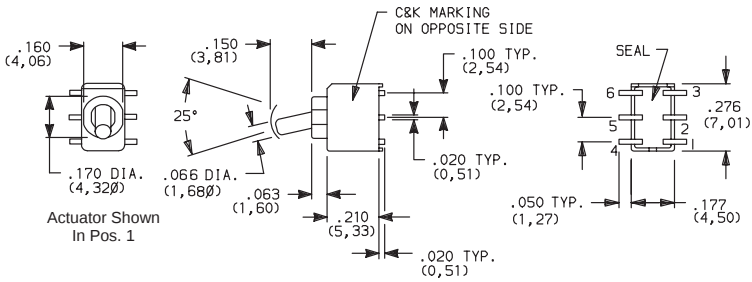
Sealed Ultraminiature Toggle Switches

SMT



GT21MSCBE
DPDT

PART NUMBER	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
GT21MSCBETR	ON	NONE	ON
GT23MSCBETR	ON	OFF	ON
Conn. Terms.	2-3, 5-6	OPEN	2-1, 5-4
Schematic			
DPDT			
GT22MSCBETR	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1, 6-4
Schematic			
DPST			

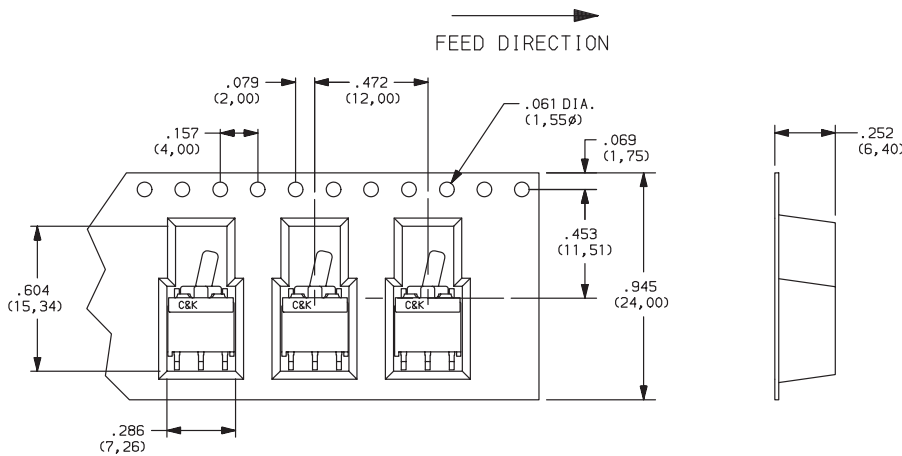


GT22-omit pads 2 & 5.

Standard with tape & reel packaging, see page G-47.

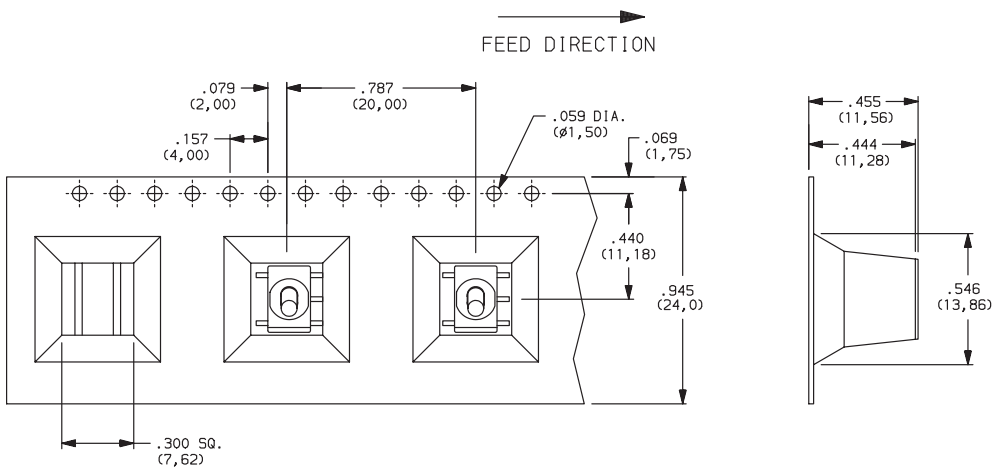
TAPE & REEL

For part numbers GT11MSABE, GT12MSABE, GT13MSABE

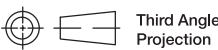


REEL INFORMATION	
OUTSIDE DIAMETER	13.00 (330,0)
PILOT HOLE	.512 (13,0)
QUANTITY PER REEL	600

For part numbers GT11MSCBE, GT12MSCBE, GT13MSCBE, GT21MSCBE, GT22MSCBE, GT23MSCBE,



REEL INFORMATION	
OUTSIDE DIAMETER	13.00 (330,0)
PILOT HOLE	.512 (13,0)
QUANTITY PER REEL	200



Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

www.ck-components.com

