

# **Quick Reference Guide** Green Pushbutton and Toggle Series Switches

The Green Series switch offering includes both pushbutton and toggle switches all rated to 6A/3A@125/250VAC and 4A@28VDC. The life expectancy depending on function (momentary or push on push off) and number of poles from 40,000 up to 80,000 cycles at full load this is accomplished due to silver slugs in the contact area. In addition to the silver slugs all contact surfaces are gold flashed this inhibits oxidation and also offers a very low initial contact resistance. The design also includes overmolded terminals which eliminate any voids which is possible with epoxy sealed terminals. The Green Series Toggle offer wide range of toggle bat options including a splash proof switch the MTE series and locking toggle MTL series. In the pushbuttons we offer our standard button style MPA plus a splash proof design MPE and our very robust actuator the MPG Mustang series.

### FEATURES AND BENEFITS

- Wire lug, PC terminals, right angle and vertical right angle offered
- Customer selected actuator cap size and color on MPA series
- MTE series splash proof toggle actuator
- MPE series sealed to IP65
- Entire series with overmolded terminals
- Actuator guards, decorative hardware, and silicone boot seals available

#### **PRODUCT APPLICATIONS**

- Military/Aerospace
- Commercial
- Industrial
- Instrumentation
- Medical



### te.com/products/switches

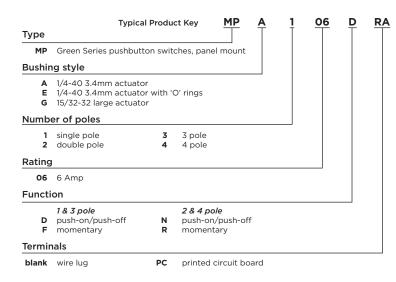
## **TE Connectivity**

Typical Performance Characteristics	
Contact configuration	spdt, dpdt, 3pdt, 4pdt
Contact timing	break-before-make
Contact rating, max	6 A @ 125 VAC, 3 A @ 250 VAC
Electrical life (pushbutton only)	push on/push off: 30,000 cycles momentary: 20,000 cycles
Contact resistance, initial	10 mOhms max.
Insulation resistance	1,000 MOhms min.
Dielectric strength	1,500 Volts rms @ sea level
Actuator force	4 to 20 N (400 to 2000 gf)
Actuator travel	3.44 mm (pushbuttons) 24°-26° (toggles)
Environmental Specifications	
Operating temperature	-20°C to +80°C
Storage temperature	-40°C to +80°C
Solder heat resistance	wave solder capable to 265°C
Seal	MPE switches IP65 overmolded terminals MTE series splash proof toggle actuator 'O' ring
Material Specifications	
Contacts	copper alloy silver clad gold flash
Actuator	brass nickel plated
Terminals	copper alloy silver clad gold flash
Terminal seal	overmolded
Case	alkyd polyester (green) UL94-V-O
Frame	stainless steel
Support bracket (toggle only)	steel nickel plated
Spring (toggle only)	music wire
RoHS Directive 2002/95/EC	compliant





### PUSHBUTTON SWITCHES PRODUCT KEY





roduct key	Bushing	No. of poles	Function	Terminals	Material	Part Number
PA106D	1/4-40 3.4mm actuator	single pole	push-on/push-off	wire lug	RoHS compliant	2-1437567-8
PA106F	1/4-40 3.4mm actuator	single pole	momentary	wire lug	RoHS compliant	2-1437567-9
PA106FPC	1/4-40 3.4mm actuator	single pole	momentary	pcb	RoHS compliant	3-1437567-0
PA206N	1/4-40 3.4mm actuator	double pole	push-on/push-off	wire lug	RoHS compliant	3-1437567-1
PA206NPC	1/4-40 3.4mm actuator	double pole	push-on/push-off	pcb	RoHS compliant	3-1437567-2
PA206R	1/4-40 3.4mm actuator	double pole	momentary	wire lug	RoHS compliant	3-1437567-3
PA206RPC	1/4-40 3.4mm actuator	double pole	momentary	pcb	RoHS compliant	3-1437567-4
PA306D	1/4-40 3.4mm actuator	3 poles	push-on/push-off	wire lug	RoHS compliant	3-1437567-5
IPA306F	1/4-40 3.4mm actuator	3 poles	momentary	wire lug	RoHS compliant	3-1437567-6
PA406N	1/4-40 3.4mm actuator	4 poles	push-on/push-off	wire lug	RoHS compliant	3-1437567-7
IPA406R	1/4-40 3.4mm actuator	4 poles	momentary	wire lug	RoHS compliant	3-1437567-8
IPE106D	1/4-40 3.4mm actuator with 'O' ring	single pole	push-on/push-off	wire lug	RoHS compliant	4-1437567-2
IPE106F	1/4-40 3.4mm actuator with 'O' ring	single pole	momentary	wire lug	RoHS compliant	4-1437567-3
IPE206N	1/4-40 3.4mm actuator with 'O' ring	double pole	push-on/push-off	wire lug	RoHS compliant	4-1437567-4
IPE206R	1/4-40 3.4mm actuator with 'O' ring	double pole	momentary	wire lug	RoHS compliant	4-1437567-5
IPE306F	1/4-40 3.4mm actuator with 'O' ring	3 poles	momentary	wire lug	RoHS compliant	4-1437567-6
IPE406N	1/4-40 3.4mm actuator with 'O' ring	4 poles	push-on/push-off	wire lug	RoHS compliant	4-1437567-7
IPE406R	1/4-40 3.4mm actuator with 'O' ring	4 poles	momentary	wire lug	RoHS compliant	4-1437567-8
/IPG106D	15/32-32 large actuator	single pole	push-on/push-off	wire lug	RoHS compliant	4-1437567-9
/IPG106F	15/32-32 large actuator	single pole	momentary	wire lug	RoHS compliant	5-1437567-0
/IPG206N	15/32-32 large actuator	double pole	push-on/push-off	wire lug	RoHS compliant	5-1437567-1
IPG206NPC	15/32-32 large actuator	double pole	push-on/push-off	pcb	RoHS compliant	5-1437567-2
/IPG206R	15/32-32 large actuator	double pole	momentary	wire lug	RoHS compliant	5-1437567-3
IPG206RPC	15/32-32 large actuator	double pole	momentary	pcb	RoHS compliant	5-1437567-4
/PG306D	15/32-32 large actuator	3 poles	push-on/push-off	wire lug	RoHS compliant	5-1437567-5
IPG306F	15/32-32 large actuator	3 poles	momentary	wire lug	RoHS compliant	5-1437567-6
IPG406N	15/32-32 large actuator	4 poles	push-on/push-off	wire lug	RoHS compliant	5-1437567-7
MPG406R	15/32-32 large actuator	4 poles	momentary	wire lug	RoHS compliant	5-1437567-8



### TOGGLE SWITCHES PRODUCT KEY

			Typical Product	Key	мт а	1 06	5 E	F
Туре					ТТ	T	- T	
МТ	Green Series toggle s	witches,	panel mount		_			
Toggle	e & Bushing							
A8 B E F G	.600 long round togg .410 long round toggl .485 long flat toggle, .452 long large diame .685 long large diame locking toggle, 1/4-40 .270 long round togg	e, 1/4-40 lle with p e, 1/4-40 1/4-40 b eter roun beter roun bushing le, 1/4-40	9 bushing, right angle & vo lastic tip, 1/4-40 bushing 9 bushing with 'O' ring sea ushing d toggle, 15/32 bushing d toggle, 15/32 bushing 9	al	-			
Numb	er of poles							
1 2	single pole double pole	3 4	3 pole 4 pole					
Rating	I							
06	6 Amp							
Functi	on							
18	3 pole	2&	4 pole	1&	2 pole functi	onality *		
н	ON-ON ON-OFF-ON ON-(ON) (ON)-OFF-(ON) ON-OFF-(ON) nations	N P R S T	ON-ON ON-OFF-ON ON-(ON) (ON)-OFF-(ON) ON-OFF-(ON)	PA SA TA		ON)		lity
blank	wire lug printed circuit board	RA VRA	right angle vertical right angle					

Product key	Toggle	Bushing	Poles	Terminations	Material	Part Number
TA106D	.410 round	1/4-40 bushing	1	wire lug	RoHS Compliant	1-1437558-0
ITA106DPC	.410 round	1/4-40 bushing	1	pc board	RoHS Compliant	1-1437558-1
VTA106E	.410 round	1/4-40 bushing	1	wire lug	RoHS Compliant	1-1437558-2
MTA106EPC	.410 round	1/4-40 bushing	1	pc board	RoHS Compliant	1-1437558-3
MTA106F	.410 round	1/4-40 bushing	1	wire lug	RoHS Compliant	1-1437558-4
MTA106FPC	.410 round	1/4-40 bushing	1	pc board	RoHS Compliant	1-1437558-5
MTA106G	.410 round	1/4-40 bushing	1	wire lug	RoHS Compliant	1-1437558-6
MTA106GPC	.410 round	1/4-40 bushing	1	pc board	RoHS Compliant	1-1437558-7
MTA206N	.410 round	1/4-40 bushing	2	wire lug	RoHS Compliant	2-1437558-0
MTA206NPC	.410 round	1/4-40 bushing	2	pc board	RoHS Compliant	2-1437558-1
MTA206P	.410 round	1/4-40 bushing	2	wire lug	RoHS Compliant	2-1437558-2
MTA206PPC	.410 round	1/4-40 bushing	2	pc board	RoHS Compliant	2-1437558-5
MTA206R	.410 round	1/4-40 bushing	2	wire lug	RoHS Compliant	2-1437558-7
MTA206RPC	.410 round	1/4-40 bushing	2	pc board	RoHS Compliant	2-1437558-8
MTA206S	.410 round	1/4-40 bushing	2	wire lug	RoHS Compliant	2-1437558-9
MTA206SPC	.410 round	1/4-40 bushing	2	pc board	RoHS Compliant	3-1437558-1
MTA306D	.410 round	1/4-40 bushing	3	wire lug	RoHS Compliant	3-1437558-5
MTA306DPC	.410 round	1/4-40 bushing	3	pc board	RoHS Compliant	3-1437558-6
MTA306E	.410 round	1/4-40 bushing	3	wire lug	RoHS Compliant	3-1437558-7
MTA306EPC	.410 round	1/4-40 bushing	3	pc board	RoHS Compliant	3-1437558-8
MTA306F	.410 round	1/4-40 bushing	3	wire lug	RoHS Compliant	3-1437558-9
MTA306FPC	.410 round	1/4-40 bushing	3	pc board	RoHS Compliant	4-1437558-0
MTA406N	.410 round	1/4-40 bushing	4	wire lug	RoHS Compliant	4-1437558-3
MTA406NPC	.410 round	1/4-40 bushing	4	pc board	RoHS Compliant	4-1437558-4
MTA406P	.410 round	1/4-40 bushing	4	wire lug	RoHS Compliant	4-1437558-5
MTA406PPC	.410 round	1/4-40 bushing	4	pc board	RoHS Compliant	4-1437558-8



	Terrele	Duching	Deles	Torminations	Matarial	Dout Number
Product key MTB106D	.600 round, w plastic tip	Bushing 1/4-40 bushing	Poles	Terminations	Material RoHS Compliant	6-1437558-2
MTB106E	.600 round, w plastic tip	1/4-40 bushing	1	wire lug	RoHS Compliant	6-1437558-3
MTB106E	.600 round, w plastic tip	1/4-40 bushing	2	wire lug wire lug	RoHS Compliant	6-1437558-4
MTB206P	.600 round, w plastic tip	1/4-40 bushing	2	wire lug	RoHS Compliant	6-1437558-5
MTB206P	.600 round, w plastic tip	1/4-40 bushing	3	wire lug	RoHS Compliant	6-1437558-6
MTB406N	.600 round, w plastic tip	1/4-40 bushing	4	wire lug	RoHS Compliant	6-1437558-7
MTE106D	.410 round	1/4-40 busining	1	wire lug	RoHS Compliant	6-1437558-8
MTE106D	.410 round	1/4-40, O-ring seal	1	wire lug	RoHS Compliant	6-1437558-9
MTE106E	.410 round	1/4-40, O-ring seal	1	wire lug	RoHS Compliant	7-1437558-0
MTE106G	.410 round	1/4-40, O-ring seal	1	wire lug	RoHS Compliant	7-1437558-1
MTE206N	.410 round	1/4-40, O-ring seal	2	wire lug	RoHS Compliant	7-1437558-2
MTE206P	.410 round	1/4-40, O-ring seal	2	wire lug	RoHS Compliant	7-1437558-3
MTE206P	.410 round	1/4-40, O-ring seal	2	wire lug	RoHS Compliant	7-1437558-5
MTE206S	.410 round	1/4-40, O-ring seal	2	wire lug	RoHS Compliant	7-1437558-6
MTE306D	.410 round		3			
MTE306D MTE306E	.410 round	1/4-40, O-ring seal	3	wire lug	RoHS Compliant	7-1437558-8
		1/4-40, O-ring seal		wire lug	RoHS Compliant	7-1437558-9
MTE406N	.410 round	1/4-40, O-ring seal	4	wire lug	RoHS Compliant	8-1437558-0
MTE406P	.410 round	1/4-40, O-ring seal	4	wire lug	RoHS Compliant	8-1437558-1
MTF106D	.485 flat	1/4-40 bushing	1	wire lug	RoHS Compliant	8-1437558-3
MTF106E	.485 flat	1/4-40 bushing	1	wire lug	RoHS Compliant	8-1437558-4
MTF106F	.485 flat	1/4-40 bushing	1	wire lug	RoHS Compliant	8-1437558-5
MTF106G	.485 flat	1/4-40 bushing	1	wire lug	RoHS Compliant	8-1437558-6
MTF206S	.485 flat	1/4-40 bushing	2	wire lug	RoHS Compliant	9-1437558-6
MTF306D	.485 flat	1/4-40 bushing	3	wire lug	RoHS Compliant	1437559-6
MTF406N	.485 flat	1/4-40 bushing	4	wire lug	RoHS Compliant	1437559-8
MTG106D	.452 large diam. round	15/32 bushing	1	wire lug	RoHS Compliant	1-1437559-1
MTG106E	.452 large diam. round	15/32 bushing	1	wire lug	RoHS Compliant	1-1437559-2
MTG106F	.452 large diam. round	15/32 bushing	1	wire lug	RoHS Compliant	1-1437559-3
MTG106G	.452 large diam. round	15/32 bushing	1	wire lug	RoHS Compliant	1-1437559-4
MTG206N	.452 large diam. round	15/32 bushing	2	wire lug	RoHS Compliant	1-1437559-8
MTG206P	.452 large diam. round	15/32 bushing	2	wire lug	RoHS Compliant	2-1437559-0
MTG206R	.452 large diam. round	15/32 bushing	2	wire lug	RoHS Compliant	2-1437559-2
MTG206S	.452 large diam. round	15/32 bushing	2	wire lug	RoHS Compliant	2-1437559-3
MTG306D	.452 large diam. round	15/32 bushing	3	wire lug	RoHS Compliant	2-1437559-8
MTG306E	.452 large diam. round	15/32 bushing	3	wire lug	RoHS Compliant	2-1437559-9
MTG406N	.452 large diam. round	15/32 bushing	4	wire lug	RoHS Compliant	3-1437559-1
MTG406P	.452 large diam. round	15/32 bushing	4	wire lug	RoHS Compliant	3-1437559-2
MTL106D	locking	1/4-40 bushing	1	wire lug	RoHS Compliant	3-1437559-4
MTL106E	locking	1/4-40 bushing	1	wire lug	RoHS Compliant	3-1437559-5
MTL206N	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	3-1437559-7
MTL206P	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	3-1437559-9
MTL206S	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	4-1437559-1
MTL306D	locking	1/4-40 bushing	3	wire lug	RoHS Compliant	4-1437559-2
MTL306E	locking	1/4-40 bushing	3	wire lug	RoHS Compliant	4-1437559-3
MTL406N	locking	1/4-40 bushing	4	wire lug	RoHS Compliant	4-1437559-4
MTM106DPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-6
MTM106EPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-7
MTM106EPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-8
MTM106NPC	.270 round	1/4-40 bushing	2	pc board	RoHS Compliant	4-1437559-9
MTM206NPC	.270 round	1/4-40 bushing	3	pc board	RoHS Compliant	5-1437559-3
MTM406NPC	.270 round	1/4-40 bushing	4	pc board pc board	RoHS Compliant	5-1437559-4
MTL106D	locking	1/4-40 bushing	1	wire lug	RoHS Compliant	3-1437559-4
MTL106D MTL106E	-	1/4-40 bushing	1	wire lug	RoHS Compliant	3-1437559-5
	locking			wire lug	RoHS Compliant RoHS Compliant	
MTL206N	locking	1/4-40 bushing	2	wire lug		3-1437559-7
MTL206P	locking	1/4-40 bushing	2		RoHS Compliant	3-1437559-9
MTL206S	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	4-1437559-1
MTL306D	locking	1/4-40 bushing	3	wire lug	RoHS Compliant	4-1437559-2
MTL306E	locking	1/4-40 bushing	3	wire lug	RoHS Compliant	4-1437559-3
MTL406N	locking	1/4-40 bushing	4	wire lug	RoHS Compliant	4-1437559-4
MTM106DPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-6
MTM106EPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-7
MTM106FPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-8
MTM206NPC	.270 round	1/4-40 bushing	2	pc board	RoHS Compliant	4-1437559-9
MTM306DPC	.270 round	1/4-40 bushing	3	pc board	RoHS Compliant	5-1437559-3
MTM406NPC	.270 round	1/4-40 bushing	4	pc board	RoHS Compliant	5-1437559-4



# How to Specify in a Switch

### **Electrical Considerations**

Voltage of Applications:	Current	of Application	:	
Circuitry Configuration: Number of Poles: _		Number of	Throws:	
Number of Operations anticipated:				
Agency Approvals or Listings Desired:				
Mechaniclal Considerations				
Type of Switch (Actuator Type): To	oggle Pushbuttor	n Rot	ary Rocker _	Other
Switch Function (On/Off/On):	On/Off:		_ Momentary:	
Termination: Thru-Hole (PC)	Surface Mount	_Wire Lug	Quick Connect	Other
Sealing Contamination Requirements:				
Product Processing Considerations				
Anticipated Soldering Process: Har	nd Wave	SMT	Other	

### FOR MORE INFORMATION

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# **Mouser Electronics**

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## TE Connectivity:

<u>1-1437563-6</u> TT23N3T TT11DGRA1 TT11DGPC9T1/4 TT13D7T1/4 TT21NGRA1ES TT11EGPC3 TT13D3T MTA406PA TT13A6T0 TT11EGRA1 MTG126D TT13E3T TTE13DG2T MTG206PA TT11EGRA9T1/4 MTA206TA TT21PGPC1 MTA206PA MTA206TPC TT11DGRA9T1/4 TTE23N8T1/4 MTA106HPC MTG106H TT43N2T TT21KGPC9T1/4 MTF206N MTF206R TT11FGPC9T1/4 TTE41NGWW2T TT23P3T TT13A3T MTL206PA MTM8106DRA MTA206T MTA106H TT41NGRA1 TT21NGRA1 TT21NGPC9T1/4 MTG206N04 MTA206N04 MTA206NPC04 MTE106F04 MTL406PA04 MTA406NPC04 MTA106HPC04 TT13D9T1/4 MTA106GPC04-MTA106E04 MTE106D04 TT13A9T1/404 MTG106G04 MTA306D04 MTL206N04 1571927-5 1-1825192-8 1825192-3 1825225-1 1825192-6 1825223-4 1825223-7 1825227-3 1825221-2 MTA106DPC04 MTA106F04 MTA106FPC04 MTA106G04 MTA106H04 MTA206PPC04 MTA206R04 MTA206S04 MTA206T04 MTA306EPC04 MTA406N04 MTA406P04 MTE106E04 MTE306D04 MTE406N04 MTF106D04 MTF106G04 MTF206N04 MTF206S04 MTF306D04 MTG106D04 MTG106H04 MTG206PA04 MTG306D04 MTG406P04 MTL206P04 MTA406N04 MTA406P04 MTE106E04 MTG106H04 MTG206PA04 MTG306D04 MTG406P04 MTL206P04 MTA406N04 MTA406P04 MTE106E04 MTE306D04 MTE306D04 MTF106G04 MTF206N04 MTF206S04 MTF306D04 MTG106H04 MTG206PA04 MTG306D04 MTG406P04 MTL206P04 MTL206PA04 MTL306D04 MTG106H04 MTG306D04 MTG306D04 MTG406P04 MTL206P04 MTL206PA04 MTL306D04 MTL406N04 TT11DGPC104 TT11DGPC9T1/404 TT11DGRA104 TT11EGPC304 TT13A3T04 TT13D3T04 TT13D7T1/404 TT13E3T04