

QFN / MLF / MLP Socket

TwistLock, FastLock & QuickLock Type



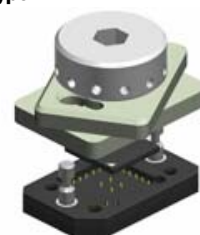
E-tec is now the leading BGA socket manufacturer.

FastLock Type

EP patents 0829188, 0897655 US patents 6190181, 6249440 Patented in other countries.

QFN/MLF/MLP sockets are available for any chip size and pitch. They are available in SMT, thru-hole and solderless compression type versions. The SMT socket is simply placed and reflowed onto the PCB in the same way as the chip and it only requires a small amount of additional board space. The retainer can be delivered with a center opening for die access. Additional center grounding pins are offered on request.

We aim to solve your requirements - your custom sets our standards!



Please note, we will always request the chip data to ensure we offer a compatible socket.

SMT style	Soldertail style	Solderless Compression style (TwistLock Type as example shown)
<p>PCB Pad Layout</p> <p>optional for grounding</p> <p>solder pad</p> <p>Ø 0,60mm/.024" if pitch 1,27mm Ø 0,50mm/.020" if pitch 1,00mm Ø 0,40mm/.016" if pitch 0,80mm Ø 0,35mm/.014" if pitch 0,75mm Ø 0,35mm/.014" if pitch 0,65mm Ø 0,30mm/.012" if pitch 0,50mm</p>	<p>PCB Pad Layout</p> <p>optional for grounding</p> <p>solder hole</p> <p>Soldertail dimension:</p> <p>Ø 0,42mm/.016" if pitch 1,27mm Ø 0,29mm/.011" if pitch 1,00mm Ø 0,29mm/.011" if pitch 0,80mm Ø 0,27mm/.010" if pitch 0,75mm Ø 0,27mm/.010" if pitch 0,65mm Ø 0,27mm/.010" if pitch 0,50mm Ø 0,17mm/.007" if pitch 0,40mm</p> <p>PCB solder hole:</p> <p>Ø 0,60mm/.024" if pitch 1,27mm Ø 0,50mm/.020" if pitch 1,00mm Ø 0,40mm/.016" if pitch 0,80mm Ø 0,35mm/.014" if pitch 0,75mm Ø 0,35mm/.014" if pitch 0,65mm Ø 0,35mm/.014" if pitch 0,50mm Ø 0,25mm/.010" if pitch 0,40mm</p>	<p>PCB Pad Layout</p> <p>optional for grounding</p> <p>PCB land</p> <p>You may request any specific socket dimension from info@e-tec.com</p> <p>gold plated pads Ø 0,70mm/.027" if pitch 1,27mm gold plated pads Ø 0,60mm/.024" if pitch 1,00mm gold plated pads Ø 0,50mm/.020" if pitch 0,80mm gold plated pads Ø 0,45mm/.018" if pitch 0,75mm gold plated pads Ø 0,40mm/.016" if pitch 0,65mm gold plated pads Ø 0,35mm/.012" if pitch 0,50mm gold plated pads Ø 0,25mm/.010" if pitch 0,40mm</p>

TwistLock Solderless Compression Type	FastLock Solderless Compression Type	Specifications
<p>QuickLock Type</p>		<p>Mechanical data</p> <p>Contact life: 10.000 cycles min.</p> <p>Retention System life: TwistLock: 1.000 cycles min. FastLock & QuickLock: 10.000 cycles min. as per IEC 60068-2-58</p> <p>Solderability: 40 grams max.</p> <p>Material</p> <p>Insulator (RoHS compliant): High temp plastic or epoxy FR4 Terminal (RoHS compliant): Brass Contact (RoHS compliant): BeCu</p> <p>Electrical data</p> <p>Contact resistance: < 100 mΩ Current rating: 500 mA max. Insulation resistance at 500V DC: 100 MΩ if 0.50 to 0.80mm pitch 500 MΩ 1.00mm pitch upwards</p> <p>Breakdown voltage at 60 Hz: 500V min. Capacitance: < 1 pF Inductance: < 2 nH</p> <p>Operating temperature</p> <p>-55°C to +125°C ; 260°C for 60 sec.</p>

Recommendations: Solder paste - Please use a solder paste w/o any silver! Solder profile - Please refer to our website www.e-tec.com
E-tec solderless sockets are adapted to a standard PCB thickness of 1.60mm. For a different PCB thickness, please inform E-tec first!
SMT sockets are recommended to be ordered with locating pegs for soldering to the PCB, to avoid the solderjoints from being stressed due to the torque forces applied with this locking system. If used without locating pegs, the life cycle of the socket may be heavily reduced.

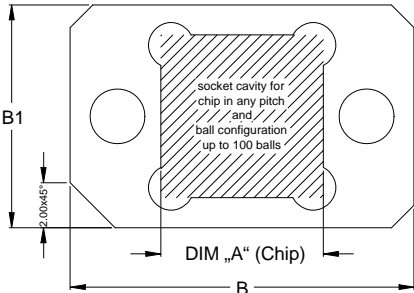

How to order

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Locking Type	Nbr of contacts	Pitch	Grid Code	Config Code	Plating
W = TwistLock F = FastLock Q = QuickLock Others on request	depends on landcount of chip, plus center grounding pins if required. (generally 4 pins)	04 = 0,40mm 10 = 1,00mm 05 = 0,50mm 12 = 1,27mm 06 = 0,65mm 07 = 0,75mm Others on request 08 = 0,80mm	will be given by the factory after receipt of the chip datasheet	will be given by the factory after receipt of the chip datasheet	95 = tin/gold (tin leadfree) <hr/> 55 = gold only for solderless Compression Type

Contact Type
30 = standard SMT... („A“ = 1,20mm if 1,27mm pitch; 0,80mm if 1,00mm pitch, 0,60 if 0,80mm pitch; 0,40mm if <0,80mm pitch) 29 = raised SMT... („A“ = 5,00mm if 1,27mm pitch; 3,20mm if 1,00mm pitch; 2,80mm if 0,80mm pitch, 2,30mm if <0,80mm pitch) 28 = special raised SMT - only for 1.00 & 0.80mm pitch..... („A“ = 4,50mm) 70 = standard solder tail..... („A“ = 3,30 if 1.27mm pitch, 2,80 if 1.00mm or 0.80mm pitch, 2,30mm if <0,80mm pitch) 90 = solderless Compression Type

Socket outline for small sized chips (up to 100 lands)

<p>Note: TwistLock sockets up to 100 pins are produced with 2 screws.</p> 	DIM „A” Chip (sq.)	DIM „B” Socket	DIM „B1” Socket	
	6.00mm / .236"	13.97mm / .550"	9.87mm / .389"	
	7.00mm / .276"	15.24mm / .600"	11.14mm / .439"	
	8.00mm / .315"	16.51mm / .650"	12.41mm / .489"	
	9.00mm / .354"	17.78mm / .700"	13.68mm / .539"	
	10.00mm / .394"	19.05mm / .750"	14.95mm / .589"	
	11.00mm / .433"	19.05mm / .750"	14.95mm / .589"	
	12.00mm / .472"	20.32mm / .800"	16.22mm / .639"	
	13.00mm / .512"	21.59mm / .850"	17.49mm / .689"	
	14.00mm / .551"	22.86mm / .900"	18.76mm / .739"	
	15.00mm / .591"	24.13mm / .950"	20.03mm / .789"	
	16.00mm / .630"	25.40mm / 1.000"	21.30mm / .839"	
	17.00mm / .669"	25.40mm / 1.000"	21.30mm / .839"	
18.00mm / .709"	26.67mm / 1.050"	22.57mm / .889"		
19.00mm / .748"	26.67mm / 1.050"	22.57mm / .889"		

For Solderless, FastLock, KnobLock, LeverLock, QuickLock, ClamShell & other locking systems, please contact your E-tec sales office for dimensional drawings.