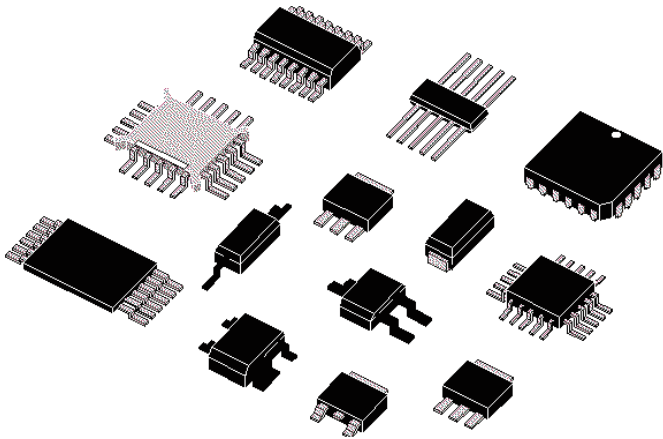


## IPC-SM Library



### IPC-SM Library

The optional IPC-SM library contains supplementary component and PCB symbol libraries for use with any variant of Easy-PC For Windows, version 8.0 or later.

### IPC-SM Standard

The Institute for Interconnecting and Packaging Electronic Circuits (IPC) defines a number of standards for electronic devices. One of these is the "Surface Mount Design and Land Pattern Standard" IPC-SM library. This specification has evolved from the old IPC-SM-782 standard, and defines the physical packaging characteristics and land patterns for a range of surface mounted devices. The IPC-SM library is also a useful reference document for general surface mount design techniques, containing sections on design requirements, reliability and testability.

### Library Organisation

The PCB symbol library contains approximately 950 surface mount devices in a range of package types. These include chip capacitors, flat packs and chip carriers, in a range of sizes and pin counts, as defined in the standard. The component library contains the same number of items as the PCB symbol library, with a one-to-one correspondence in naming. The items in this library can be used "as is" when creating PCB layouts 'directly' by adding 'generic' components. They can also be copied to new components and edited using the Library tools in Easy-PC For Windows to quickly and easily create your own 'specific' components for particular devices.

### Prerequisites For Using the IPC Library

This library works with and requires any Easy-PC For Windows V12.0 or a later version.

### Library Features:

#### Discrete Devices

- Chip Capacitors
- Aluminium Electrolytic Capacitors
- Molded Body Capacitors (Polarised)
- MELF Diodes
- Molded Body Diodes
- Chip Inductors
- Molded Chip Inductors
- Wire-Wound Chip Inductors
- Chip Resistors
- MELF Resistors
- Small Outline Transistors (SOT) and Diodes (SOD)

#### Flat Pack Devices

- Ceramic Flat Packs (CFP)
- Bumper Quad Flat Packs (BQFP)
- Ceramic Quad Flat Packs (CQFP)
- Plastic Quad Flat Packs (PQFP)
- Quad Flat Packs (QFP)
- Shrink Quad Flat Pack (SQFP)
- Thin Quad Flat Pack (TQFP)
- Thin Shrink Quad Flat Pack (SQFP)

#### Chip Carrier Devices

- Leadless Ceramic Chip Carriers (LCC)
- Plastic Leaded Chip Carriers (PLCC)
- IC Packages
- Small Outline ICs (SOIC)
- Small Outline J-Lead ICs (SOJ)
- Small Outline Packages (SOP)
- Shrink Small Outline ICs (SSOIC)
- Thin Small Outline Packages (TSOP)
- Thin Shrink Small Outline Packages (TSSOP)
- Ball Grid Arrays (BGA)

# IPC-SM Library

## Chip Capacitors

CAPC0603N	CAPC0816N	CAPC1005N
CAPC1210N	CAPC1320N	CAPC1608N
CAPC1632N	CAPC2012N	CAPC3216N
CAPC3225N	CAPC4520N	CAPC4532N
CAPC4564N	CAPC4833N	CAPC5025N
CAPC5664N	CAPC5750N	CAPC6041N
CAPC6332N		

## Aluminium Electrolytic Capacitors

CAPAE103W102HN	CAPAE103W105HN	
CAPAE103W135HN	CAPAE103W175HN	
CAPAE135W135HN	CAPAE135W165HN	
CAPAE33W54HN	CAPAE33W55HN	CAPAE43W46HN
CAPAE43W54HN	CAPAE43W55HN	CAPAE43W60HN
CAPAE53W46HN	CAPAE53W54HN	CAPAE53W55HN
CAPAE53W60HN	CAPAE66W46HN	CAPAE66W54HN
CAPAE66W55HN	CAPAE66W57HN	CAPAE66W60HN
CAPAE66W79HN	CAPAE83W102HN	CAPAE83W105HN
CAPAE83W62HN	CAPAE83W68HN	

## Moulded Body Capacitors (Polarised)

CAPMP2013N	CAPMP3216N	CAPMP3528N
CAPMP4726N	CAPMP4945N	CAPMP4955N
CAPMP5846N	CAPMP6032N	CAPMP7243N
CAPMP7343N	CAPMP7350N	CAPMP7355N
CAPMP7360N	CAPMP7365N	CAPMP7370N
CAPMP9675N		

## MELF Diodes

DIOMELF3516N	DIOMELF3517N	DIOMELF5025N
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## Moulded Body Diodes

DIOSMAN	DIOSMBN	DIOSMCN
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## Chip Inductors

INDC1005N	INDC1608N	INDC2012N
INDC2520N	INDC3216N	INDC3225N
INDC4532N	INDC5750N	INDC6350N

## Moulded Chip Inductors

INDM2116N	INDM2520N	INDM3225N
INDM3230N	INDM4030N	INDM4131N
INDM4532N	INDM5134N	INDM5450N
INDM8530N	INDM8531N	

## Wire-Wound Chip Inductors

INDP4532N

## Chip Resistors

RESC0603N	RESC1005N	RESC1608N
RESC2012N	RESC3216N	RESC3225N
RESC3720N	RESC4532AN	RESC4532N
RESC4564N	RESC5025N	RESC5038N
RESC6235N	RESC6332N	RESC6350N
RESM6234N	RESM9940N	

## MELF Resistors

RESMELF2012N	RESMELF3216N	RESMELF3516N
RESMELF5923N	RESMELF7028N	

## Small Outline Transistors (SOT) and Diodes (SOD)

SOT127P700-6N	SOT143N	
SOT143RN	SOT150P700-5N	SOT230P700-4N
SOT343N	SOT343RN	SOT65P210-3N
SOT65P210-5N	SOT65P210-6N	SOT65P280-8AN
SOT65P280-8N	SOT89N	SOT89RN
SOT95P275-3N	SOT95P275-6N	SOT95P280-3N
SOT95P280-5AN	SOT95P280-5N	SOT95P280-6AN
SOT95P280-6N	TO127P1055-8N	TO127P1394-8N
TO127P1600-16N	TO170P1055-6N	TO170P1394-6N
TO170P1600-12N	TO191P1117-10N	TO228P970-3N
TO254P1055-4N	TO254P1394-4N	

## Ceramic Flat Packs (CFP)

CFP127P1130-10N	CFP127P1130-14N	CFP127P1130-16N
CFP127P1530-20N	CFP127P1530-24N	CFP127P1530-28N
CFP127P1730-36N	CFP127P1730-40N	CFP127P2030-16N
CFP127P2030-24N	CFP127P2030-36N	CFP127P2230-20N
CFP127P2230-42N	CFP127P2730-36N	CFP127P2730-50N
CFP127P930-10N	CFP127P930-14N	

### Bumper Quad Flat Packs (BQFP)

BQFPC-100N	BQFPC-132N	BQFPC-148N
BQFPC-164N	BQFPC-196N	BQFPC-244N
BQFPC-44N	BQFPC-52N	BQFPC-68N
BQFPC-84N	BQFPC-100N	BQFPC-132N
BQFPC-148N	BQFPC-164N	BQFPC-196N
BQFPC-244N	BQFPC-44N	BQFPC-52N
BQFPC-68N	BQFPC-84N	

### Ceramic Quad Flat Packs (CQFP)

CQFP127P1460X1460-28N  
 CQFP127P1727X1727-36N  
 CQFP127P1981X1981-44N  
 CQFP127P2235X2235-52N  
 CQFP127P2743X2743-68N  
 CQFP127P3251X3251-84N  
 CQFP127P3759X3759-100N  
 CQFP63P2743X2743-132N  
 CQFP63P3375X3375-148N  
 CQFP63P3375X3375-164N  
 CQFP63P3600X3600-196N  
 CQFP80P3120X3120-120N  
 CQFP80P3120X3120-128N

### Plastic Quad Flat Packs (PQFP)

PQFPC-100N	PQFPC-132N	PQFPC-164N
PQFPC-196N	PQFPC-244N	PQFPC-84N
PQFPC-100N	PQFPC-132N	PQFPC-164N
PQFPC-196N	PQFPC-244N	PQFPC-84N

### Quad Flat no lead Pack (QFN)

QFN50P1000X1000-65V1N	
QFN50P1000X1000-65W1N	
QFN50P1000X1000-69V2N	
QFN50P1000X1000-69W2N	
QFN50P1000X1000-73V3N	
QFN50P1000X1000-73W3N	
QFN50P1200X1200-81V4N	
QFN50P1200X1200-81W4N	
QFN50P200X200-9VN	QFN50P200X200-9VN
QFN50P300X300-13V1N	QFN50P300X300-13V1N
QFN50P300X300-13V5N	QFN50P300X300-13V5N
QFN50P300X300-13W1N	QFN50P300X300-13W1N
QFN50P300X300-13W3N	QFN50P300X300-13W3N
QFN50P300X300-17V2N	QFN50P300X300-17V4N
QFN50P300X300-17V6N	QFN50P300X300-17V7N
QFN50P300X300-17W2N	QFN50P300X300-17W4N
QFN50P300X300-17W7N	QFN50P350X350-21VN
QFN50P350X350-21W1N	QFN50P400X300-17VN
QFN50P400X300-17WN	QFN50P400X400-15W3N
QFN50P400X400-21V1N	QFN50P400X400-21V5N

QFN50P400X400-21W1N	QFN50P400X400-21W5N
QFN50P400X400-25V2N	QFN50P400X400-25V6N
QFN50P400X400-25V8N	QFN50P400X400-25V9N
QFN50P400X400-25W2N	QFN50P400X400-25W4N
QFN50P400X400-25W6N	QFN50P400X400-25W8N
QFN50P400X400-29V7N	QFN50P400X500-25V1N
QFN50P400X500-25W1N	QFN50P500X400-25VN
QFN50P500X400-25WN	QFN50P500X500-29V1N
QFN50P500X500-29V3N	QFN50P500X500-29W1N
QFN50P500X500-29W3N	QFN50P500X500-33V2N
QFN50P500X500-33V4N	QFN50P500X500-33V5N
QFN50P500X500-33V6N	QFN50P500X500-33W2N
QFN50P500X500-33W4N	QFN50P500X500-33W5N
QFN50P500X500-33W6N	QFN50P500X600-33WN
QFN50P500X700-39VN	QFN50P500X700-39WN
QFN50P600X500-33VN	QFN50P600X500-33WN
QFN50P600X600-33W7N	QFN50P600X600-37V1N
QFN50P600X600-37V4N	QFN50P600X600-37W1N
QFN50P600X600-37W4N	QFN50P600X600-39W3N
QFN50P600X600-41V2N	QFN50P600X600-41V5N
QFN50P600X600-41V6N	QFN50P600X600-41W2N
QFN50P600X600-41W5N	QFN50P600X600-41W6N
QFN50P700X500-39VN	QFN50P700X500-39WN
QFN50P700X700-29V2N	QFN50P700X700-41VN
QFN50P700X700-41WN	QFN50P700X700-45V1N
QFN50P700X700-45V3N	QFN50P700X700-45W1N
QFN50P700X700-45W3N	QFN50P700X700-45W5N
QFN50P700X700-45W7N	QFN50P700X700-49V4N
QFN50P700X700-49V6N	QFN50P700X700-49W2N
QFN50P700X700-49W4N	QFN50P700X700-49W6N
QFN50P800X800-49VN	QFN50P800X800-49W3N
QFN50P800X800-49WN	QFN50P800X800-53V1N
QFN50P800X800-53V4N	QFN50P800X800-53W1N
QFN50P800X800-53W4N	QFN50P800X800-57V2N
QFN50P800X800-57V5N	QFN50P800X800-57V6N
QFN50P800X800-57W2N	QFN50P800X800-57W5N
QFN50P800X800-57W6N	QFN50P900X900-57V2N
QFN50P900X900-57W2N	QFN50P900X900-61V1N
QFN50P900X900-61W1N	QFN50P900X900-65V3N
QFN50P900X900-65VN	QFN50P900X900-65W3N
QFN50P900X900-65WN	QFN65P300X300-13V1N
QFN65P300X300-13V1N	QFN65P300X300-9V2N
QFN65P300X300-9V3N	QFN65P300X300-9VN
QFN65P300X300-9W2N	QFN65P300X300-9W3N
QFN65P300X300-9WN	QFN65P400X300-13VN
QFN65P400X300-13WN	QFN65P400X400-13V1N
QFN65P400X400-13W1N	QFN65P400X400-17V2N
QFN65P400X400-17V3N	QFN65P400X400-17VN
QFN65P400X400-17W2N	QFN65P400X400-17W3N
QFN65P400X400-17WN	QFN65P500X400-19VN

QFN65P500X400-19WN	QFN65P500X500-21V2N
QFN65P500X500-21VN	QFN65P500X500-21W2N
QFN65P500X500-21WN	QFN65P500X500-25VIN
QFN65P500X500-25WIN	QFN65P500X600-23VN
QFN65P500X600-23WN	QFN65P600X500-23VN
QFN65P600X500-23WN	QFN65P600X600-25VIN
QFN65P600X600-25WIN	QFN65P600X600-29V3N
QFN65P600X600-29VN	QFN65P600X600-29W3N
QFN65P600X600-29WN	QFN65P600X600-33V2N
QFN65P600X600-33W2N	QFN65P700X700-33V2N
QFN65P700X700-33VN	QFN65P700X700-33W2N
QFN65P700X700-33WN	QFN65P700X700-37VIN
QFN65P700X700-37WIN	QFN65P800X800-37VIN
QFN65P800X800-37WIN	QFN65P800X800-41V3N
QFN65P800X800-41VN	QFN65P800X800-41W3N
QFN65P800X800-41WN	QFN65P800X800-45V2N
QFN65P800X800-45W2N	QFN65P900X900-45VIN
QFN65P900X900-45WIN	QFN65P900X900-49VN
QFN65P900X900-49WN	QFN80P300X300-5VN
QFN80P300X300-5WN	QFN80P400X300-9VN
QFN80P400X300-9WN	QFN80P400X400-13VN
QFN80P400X400-13WN	QFN80P400X400-15WIN
QFN80P500X400-15VN	QFN80P500X400-15WN
QFN80P500X400-17WIN	QFN80P500X500-17VN
QFN80P500X500-17WN	QFN80P500X500-19WIN
QFN80P600X500-19VN	QFN80P600X500-19WN
QFN80P600X500-21WIN	QFN80P600X600-21VN
QFN80P600X600-21WN	QFN80P600X600-25WIN
QFN80P700X700-29VN	QFN80P700X700-29WN
QFN80P800X800-29WIN	QFN80P800X800-33VN
QFN80P800X800-33WN	QFN80P900X900-37WN

### Quad Flat Packs (QFP)

QFP100P1720X1720-52N	QFP100P1720X2340-64N
QFP100P1870X2470-64N	QFP100P2060X2060-52N
QFP100P2130X2130-52N	QFP65P1200X1200-44N
QFP65P1320X1320-52N	QFP65P1520X1520-64N
QFP65P1600X2210-100N	QFP65P1720X1720-80N
QFP65P1720X2320-100N	QFP65P1780X2380-100N
QFP65P1790X2390-100N	QFP65P1880X2480-100N
QFP65P1900X2500-88N	QFP65P2320X2320-112N
QFP65P3120X3120-144N	QFP65P3120X3120-160N
QFP65P3120X3120-168N	QFP65P3200X3200-160N
QFP65P3520X3520-184N	QFP65P4320X4320-232N
QFP80P1260X1260-44N	QFP80P1320X1320-44N
QFP80P1400X1400-44N	QFP80P1520X1520-48N
QFP80P1720X1720-64N	QFP80P1720X2320-80AN
QFP80P1720X2320-80N	QFP80P1790X2390-80N
QFP80P1900X2500-80N	QFP80P2780X2780-100N
QFP80P3120X3120-120N	QFP80P3120X3120-128N

### Shrink Quad Flat Pack (SQFP)

SQFP40P1200X1200-80N	SQFP40P1200X1200-88N
SQFP40P1200X1600-100N	SQFP40P1200X1600-108N
SQFP40P1400X1400-100N	SQFP40P1400X1400-108N
SQFP40P1600X1600-120N	SQFP40P1600X1600-128N
SQFP40P1600X2200-152N	SQFP40P1600X2200-160N
SQFP40P2200X2200-184N	SQFP40P2200X2200-192N
SQFP40P2200X3000-224N	SQFP40P2200X3000-232N
SQFP40P2600X2600-224N	SQFP40P2600X2600-232N
SQFP40P3000X3000-256N	SQFP40P3000X3000-264N
SQFP40P3000X3000-272N	SQFP40P3000X4200-324N
SQFP40P3000X4200-332N	SQFP40P3400X3400-304N
SQFP40P3400X3400-312N	SQFP40P3800X3800-344N
SQFP40P3800X3800-352N	SQFP40P4200X4200-384N
SQFP40P4200X4200-392N	SQFP40P4600X4600-424N
SQFP40P4600X4600-432N	SQFP40P700X700-32N
SQFP40P700X700-40N	SQFP40P700X900-44N
SQFP40P700X900-52N	SQFP40P800X800-40N
SQFP40P800X800-48N	SQFP40P900X1200-68N
SQFP40P900X1200-76N	SQFP40P900X900-56N
SQFP40P900X900-64N	SQFP50P1200X1200-64N
SQFP50P1200X1200-72N	SQFP50P1200X1600-80N
SQFP50P1200X1600-88N	SQFP50P1320X1320-64N
SQFP50P1400X1400-80N	SQFP50P1400X1400-88N
SQFP50P1600X1600-100N	SQFP50P1600X1600-108N
SQFP50P1600X2200-120N	SQFP50P1600X2200-128N
SQFP50P1720X2320-128N	SQFP50P1760X2360-128N
SQFP50P1840X1840-120N	SQFP50P2200X2200-144N
SQFP50P2200X2200-152N	SQFP50P2200X3000-176N
SQFP50P2200X3000-184N	SQFP50P2600X2600-176N
SQFP50P2600X2600-184N	SQFP50P3000X3000-160N
SQFP50P3000X3000-208N	SQFP50P3000X3000-216N
SQFP50P3000X4200-256N	SQFP50P3000X4200-264N
SQFP50P3060X3060-208N	SQFP50P3190X3190-208N
SQFP50P3400X3400-240N	SQFP50P3400X3400-248N
SQFP50P3800X3800-272N	SQFP50P3800X3800-280N
SQFP50P4200X4200-304N	SQFP50P4200X4200-312N
SQFP50P4600X4600-336N	SQFP50P4600X4600-344N
SQFP50P700X700-24N	SQFP50P700X700-32N
SQFP50P700X900-32N	SQFP50P700X900-40N
SQFP50P800X800-32N	SQFP50P800X800-40N
SQFP50P900X1200-52N	SQFP50P900X1200-60N
SQFP50P900X900-40N	SQFP50P900X900-48N

## Thin Quad Flat Pack (TQFP)

TQFP65P1320X1320-52N  
 TQFP65P1400X1400-64AN  
 TQFP65P1400X1400-64N  
 TQFP65P1600X2200-100AN  
 TQFP65P1600X2200-100N  
 TQFP65P1720X1720-80N  
 TQFP65P600X600-20AN  
 TQFP65P600X600-20N  
 TQFP80P1200X1200-44AN  
 TQFP80P1200X1200-44N  
 TQFP80P1600X1600-64AN  
 TQFP80P1600X1600-64N  
 TQFP80P900X900-32AN  
 TQFP80P900X900-32N

## Thin Shrink Quad Flat Pack (SQFP)

TSQFP40P1200X1200-80AN  
 TSQFP40P1200X1200-80N  
 TSQFP40P1400X1400-100AN  
 TSQFP40P1400X1400-100N  
 TSQFP40P1600X1600-120AN  
 TSQFP40P1600X1600-120N  
 TSQFP40P2200X2200-176AN  
 TSQFP40P2200X2200-176N  
 TSQFP40P2600X2600-216AN  
 TSQFP40P2600X2600-216N  
 TSQFP40P600X600-32AN  
 TSQFP40P600X600-32N  
 TSQFP40P700X700-40AN  
 TSQFP40P700X700-40N  
 TSQFP40P900X900-64AN  
 TSQFP40P900X900-64N  
 TSQFP50P1200X1200-64AN  
 TSQFP50P1200X1200-64N  
 TSQFP50P1400X1400-80AN  
 TSQFP50P1400X1400-80N  
 TSQFP50P1600X1600-100AN  
 TSQFP50P1600X1600-100N  
 TSQFP50P1600X2200-128N  
 TSQFP50P2200X2200-128N  
 TSQFP50P2200X2200-144AN  
 TSQFP50P2200X2200-144N  
 TSQFP50P2600X2600-176AN  
 TSQFP50P2600X2600-176N  
 TSQFP50P2650X2650-176BN  
 TSQFP50P3000X3000-208N  
 TSQFP50P600X600-24AN  
 TSQFP50P600X600-24N

TSQFP50P700X700-32AN  
 TSQFP50P700X700-32N  
 TSQFP50P900X900-48AN  
 TSQFP50P900X900-48N

## Leadless Ceramic Chip Carriers (LCC)

LCC127P1041X1041-24N  
 LCC127P1676X1676-44N  
 LCC127P2443X2443-68N  
 LCC127P3456X3456-100N  
 LCC127P5234X5234-156N  
 LCC127P909X909-20N  
 LCC127P1163X1163-28N  
 LCC127P1932X1932-52N  
 LCC127P2959X2959-84N  
 LCC127P4218X4218-124N  
 LCC127P782X782-16N

## Plastic Leaded Chip Carriers (PLCC)

PPLCC-100N  
 PLCC-28N  
 PLCC-68N  
 PLCCR-18N  
 PLCCR-32N  
 PLCC-124N  
 PLCC-44N  
 PLCC-84N  
 PLCCR-22N  
 PLCC-20N  
 PLCC-52N  
 PLCCR-18AN  
 PLCCR-28N

## Small Outline ICs (SOIC)

SOIC127P1030-14N  
 SOIC127P1030-18N  
 SOIC127P1030-8N  
 SOIC127P1047-28N  
 SOIC127P1047-36N  
 SOIC127P1199-28N  
 SOIC127P1199-36N  
 SOIC127P600-16N  
 SOIC127P760-14N  
 SOIC127P760-18N  
 SOIC127P760-24N  
 SOIC127P760-8N  
 SOIC127P1030-16N  
 SOIC127P1030-20N  
 SOIC127P1047-24N  
 SOIC127P1047-32N  
 SOIC127P1199-24N  
 SOIC127P1199-32N  
 SOIC127P600-14N  
 SOIC127P600-8N  
 SOIC127P760-16N  
 SOIC127P760-20N  
 SOIC127P760-28N

## Small Outline J-Lead ICs (SOJ)

SOJ127P1118-14N  
 SOJ127P1118-18N  
 SOJ127P1118-22N  
 SOJ127P1118-26N  
 SOJ127P1118-32N  
 SOJ127P1118-36N  
 SOJ127P1118-42N  
 SOJ127P1238-14N  
 SOJ127P1238-18N  
 SOJ127P1238-22N  
 SOJ127P1238-26N  
 SOJ127P866-14N  
 SOJ127P866-18N  
 SOJ127P866-22N  
 SOJ127P1118-16N  
 SOJ127P1118-20N  
 SOJ127P1118-24N  
 SOJ127P1118-28N  
 SOJ127P1118-34N  
 SOJ127P1118-40N  
 SOJ127P1118-44N  
 SOJ127P1238-16N  
 SOJ127P1238-20N  
 SOJ127P1238-24N  
 SOJ127P1238-28N  
 SOJ127P866-16N  
 SOJ127P866-20N  
 SOJ127P866-24N

SOJ127P866-26N	SOJ127P866-28N
SOJ127P866-32N	SOJ127P984-14N
SOJ127P984-16N	SOJ127P984-18N
SOJ127P984-20N	SOJ127P984-22N
SOJ127P984-24N	SOJ127P984-26N
SOJ127P984-28N	

### Small Outline Packages (SOP)

SOP100P1200-32N	SOP127P1017-22N
SOP127P1017-24N	SOP127P1207-28N
SOP127P1207-30N	SOP127P1398-32N
SOP127P1398-36N	SOP127P1588-40N
SOP127P1588-42N	SOP127P1588-44N
SOP127P636-10N	SOP127P636-12N
SOP127P636-14N	SOP127P636-6N
SOP127P636-8N	SOP127P680-4N
SOP127P780-14N	SOP127P780-16N
SOP127P780-20N	SOP127P780-24N
SOP127P826-16N	SOP127P826-18N
SOP127P826-20N	SOP63P1035-28N
SOP63P1035-36N	SOP63P1035-48N
SOP63P1035-56N	SOP63P1035-64N
SOP63P600-16N	SOP63P600-20N
SOP63P600-24N	SOP63P600-28N
SOP63P770-8N	SOP63P780-14N
SOP63P780-16N	SOP63P780-20N
SOP63P780-24N	SOP63P780-28N
SOP65P780-14N	SOP65P780-16N
SOP65P780-18N	SOP65P780-20N
SOP65P780-22N	SOP65P780-24N
SOP65P780-28N	SOP65P780-30N
SOP65P780-38N	SOP65P780-8N
SOP80P1040-36N	SOP80P1425-64N
SOP80P1600-56N	SOP80P900-16N

### Shrink Small Outline ICs (SSOIC)

SSOP50P620-40N	SSOP50P620-80N
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### Thin Small Outline Packages (TSOP)

TSOP100P285-6N	TSOP127P1175-32N
TSOP65P1176-66N	TSOP65P400-8N
TSOP65P490-8N	TSOP65P505-8N
TSOP65P640-14N	TSOP65P640-16N
TSOP65P640-20N	TSOP65P640-24N
TSOP65P640-28N	TSOP65P640-8N
TSOP80P1175-32N	TSOP80P1175-44N
TSOP80P1175-50N	TSOP80P1175-54N

### Thin Shrink Small Outline Packages (TSSOP)

TSSOP40P1800-28N	TSSOP40P1800-40N
TSSOP40P1800-48N	TSSOP40P1800-60N
TSSOP40P640-14N	TSSOP40P640-16N
TSSOP40P640-20N	TSSOP40P640-24N
TSSOP40P640-48N	TSSOP40P640-56N
TSSOP40P810-100N	TSSOP40P810-80N
TSSOP50P1175-86N	TSSOP50P1340-32N
TSSOP50P1400-40N	TSSOP50P1600-24N
TSSOP50P1600-32N	TSSOP50P1600-40N
TSSOP50P1600-48N	TSSOP50P2000-32N
TSSOP50P2000-40N	TSSOP50P2000-48N
TSSOP50P2000-56N	TSSOP50P310-8N
TSSOP50P490-10N	TSSOP50P640-38N
TSSOP50P810-48N	TSSOP50P810-56N
TSSOP50P810-64N	TSSOP55P1340-28N
TSSOP55P1340-28RN	

### Ball Grid Arrays (BGAs)

BGA100P10X10-100	BGA100P10X10-100A
BGA100P11X11-121	BGA100P11X11-121A
BGA100P12X12-144	BGA100P12X12-144A
BGA100P13X13-169	BGA100P13X13-169A
BGA100P14X14-196	BGA100P14X14-196A
BGA100P15X15-225	BGA100P16X16-255
BGA100P16X16-256	BGA100P16X16-256A
BGA100P17X17-289	BGA100P18X18-324
BGA100P19X19-361	BGA100P20X20-256
BGA100P20X20-364	BGA100P20X20-372
BGA100P20X20-400	BGA100P21X21-441
BGA100P22X22-484	BGA100P22X22-484A
BGA100P23X23-529	BGA100P24X24-576
BGA100P25X25-625	BGA100P26X26-456
BGA100P26X26-548	BGA100P26X26-676
BGA100P26X26-676A	BGA100P27X27-729
BGA100P28X28-784	BGA100P29X29-841
BGA100P30X30-640	BGA100P30X30-900
BGA100P31X31-961	BGA100P32X32-1024
BGA100P33X33-1089	BGA100P34X34-1156
BGA100P36X36-1296	BGA100P37X37-1369
BGA100P38X38-1444	BGA100P39X39-1521
BGA100P41X41-1681	BGA100P42X42-1764
BGA100P43X43-1849	BGA100P44X44-1936
BGA100P46X46-2116	BGA100P47X47-2209
BGA100P48X48-2304	BGA100P49X49-2401
BGA100P5X5-25	BGA100P6X6-36
BGA100P6X6-36A	BGA100P7X7-49
BGA100P7X7-49A	BGA100P8X8-64

BGA100P8X8-64A	BGA100P9X9-81	BGA150P20X20-400	BGA150P21X21-441
BGA100P9X9-81A	BGA127P10X10-100	BGA150P22X22-484	BGA150P22X22-484A
BGA127P10X10-100A	BGA127P10X10-100B	BGA150P23X23-529	BGA150P24X24-576
BGA127P11X11-121	BGA127P12X12-144	BGA150P25X25-625	BGA150P25X25-625A
BGA127P13X13-169	BGA127P13X13-169A	BGA150P26X26-676	BGA150P27X27-729
BGA127P14X14-196	BGA127P15X15-225	BGA150P28X28-784	BGA150P29X29-841
BGA127P16X16-256	BGA127P16X16-256A	BGA150P30X30-900	BGA150P30X30-900A
BGA127P17X17-233	BGA127P17X17-289	BGA150P31X31-961	BGA150P32X32-1024
BGA127P18X18-324	BGA127P18X18-324A	BGA150P33X33-1089	BGA150P3X3-9
BGA127P19X19-360	BGA127P19X19-361	BGA150P4X4-16	BGA150P4X4-16A
BGA127P19X19-361A	BGA127P20X20-256	BGA150P5X5-25	BGA150P5X5-25A
BGA127P20X20-272	BGA127P20X20-292	BGA150P5X5-25B	BGA150P6X6-36
BGA127P20X20-400	BGA127P21X21-441	BGA150P6X6-36A	BGA150P6X6-36B
BGA127P21X21-441A	BGA127P22X22-484	BGA150P7X7-49	BGA150P7X7-49A
BGA127P23X23-529	BGA127P24X24-576	BGA150P7X7-49B	BGA150P8X8-64
BGA127P24X24-576A	BGA127P25X25-625	BGA150P8X8-64A	BGA150P8X8-64B
BGA127P26X26-312	BGA127P26X26-340	BGA150P9X9-81	BGA150P9X9-81A
BGA127P26X26-352	BGA127P26X26-388	BGA50P3X3-8	BGA65P20X20-204
BGA127P26X26-420	BGA127P26X26-436	BGA75P6X8-48	BGA80P13X13-144
BGA127P26X26-452	BGA127P26X26-456	BGA80P14X14-180	BGA80P19X19-280
BGA127P26X26-676	BGA127P27X27-729	BGA80P20X20-399	BGA80P26X26-548
BGA127P28X28-784	BGA127P29X29-400		
BGA127P29X29-480	BGA127P29X29-841		
BGA127P30X30-900	BGA127P31X31-432		
BGA127P31X31-520	BGA127P31X31-600		
BGA127P31X31-873	BGA127P31X31-961		
BGA127P32X32-1024	BGA127P32X32-540		
BGA127P33X33-1089	BGA127P33X33-560		
BGA127P34X34-1156	BGA127P35X35-1225		
BGA127P35X35-600	BGA127P36X36-1296		
BGA127P37X37-1369	BGA127P38X38-1444		
BGA127P39X39-1521	BGA127P4X4-16		
BGA127P5X5-25	BGA127P5X5-25A		
BGA127P5X5-25B	BGA127P6X6-36		
BGA127P6X6-36A	BGA127P6X6-36B		
BGA127P7X7-49	BGA127P7X7-49A		
BGA127P8X8-64	BGA127P8X8-64A		
BGA127P9X9-81	BGA127P9X9-81A		
BGA127P9X9-81B	BGA150P10X10-100		
BGA150P10X10-100A	BGA150P11X11-121		
BGA150P11X11-121A	BGA150P12X12-144		
BGA150P13X13-169	BGA150P14X14-196		
BGA150P14X14-196A	BGA150P15X15-225		
BGA150P15X15-225A	BGA150P15X15-225B		
BGA150P16X16-256	BGA150P17X17-289		
BGA150P18X18-324	BGA150P18X18-324A		
BGA150P19X19-361	BGA150P19X19-361A		

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