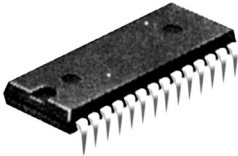


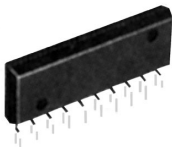


1. PACKAGE CLASSIFICATIONS

1-3. Package Type and Characteristics

1

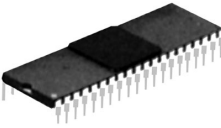

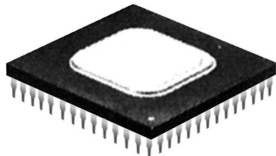
1) Through-hole mounting type package

Type	Package Types		Package Symbol	Pin Count	
Through-hole Mounting Type	Plastic	Standard		RS	8, 14, 16, 18, 20, 22, 24, 28, 32, 36, 40, 42, 48
		Skinny		RS	20, 22
		Shrink		SS	30, 42, 64
		ZIP		ZS	20, 24, 28, 40

Package Name	Characteristics
Dual In-line Package	Standard DIP packages are most widely used. The lead pitch is 2.54 mm (100 mil), and the spacing between terminal rows is 300, 400, or 600 mil.
Skinny Dual In-line Package	Skinny DIP packages are standard DIPs with spacing between terminal rows of 7.62 mm (300 mil) and with 20 or more pins.
Shrink Dual In-line Package	Shrink DIP packages are standard DIPs with a lead pitch reduced to 1.778 mm (70 mil). They are smaller in external size than standard DIPs and suited to compact electronic equipment using high-pin-density IC packages.
Zigzag In-line Package	ZIP packages are featured by the leads which are drawn out from each package body into a single row to allow vertical mounting with a lead pitch of 1.27mm(50mil). The leads of each package are Zigzag folded, within the package surface thickness, into two rows. The Zigzag folding increases the lead pitch in each row to 2.54mm(100mil).

1. PACKAGE CLASSIFICATIONS

1

Type	Package Types		Package Symbol	Pin Count	
Through-hole Mounting Type	Ceramic	Standard DIP		AS	14, 16, 18, 20, 22, 24, 28, 40, 42, 48
		CER-DIP		AS	8, 14, 16, 18, 22, 24, 28, 32, 40, 42
		PGA		AS	73* ² , 88, 121* ² , 133* ² , 177* ² , 209* ² , 257* ² , 301* ² , 325* ² , 401* ² , 572* ¹

*1 Under development

*2 The PGA pin count includes a pin for preventing incorrect insertion.

Package Name	Characteristics
Dual In-line Package	DIP packages are hermetic ceramic package. The lead pitch is 2.54 mm (100 mil) and the package body is made of ceramics. Metal or glass may be used as a sealing material.
Dual In-line Package (Glass Sealed)	Dual In-line packages are called "CER-DIP" package. The lead pitch is 2.54 mm (100 mil), and the package body is molded with powder ceramics. The sealing material is glass.
Pin Grid Array	PGA packages are featured by the leads which are drawn out vertically from each package body and arranged on the specified grid. The package body is made of ceramics, and the standard lead pitch is 2.54 mm (100 mil). PGA packages are suited to multipin packaging.