

Series IC51 (Clamshell) QFP, PQFP, TQFP and MQUAD®

0.4mm to 1.27 Pitch

Specifications

Insulation Resistance:	1,000MΩ min. at 100V DC
Dielectric Withstanding Voltage:	for 1 minute (socket depended)
Contact Resistance:	30mΩ max. at 10mA/20mV max.
Operating Temperature Range:	-40°C to +150°C (for type PEI/PSF) -55°C to +170°C (for type PES) -55°C to +170°C (for type PEI)
Mating Cycles:	10,000 insertions min.

Materials and Finish

Housing:	Polysulphone (PSF), glass-filled Polyethersulphone (PES), glass-filled Polyetherimide (PEI), glass-filled
Contacts:	Beryllium Copper (BeCu)
Plating:	Gold over Nickel



Part Number (Details)

IC51 - 064 4 - 807

Series No.

No. of Contact Pins

Number of Sides
with Contacts

Design Number

As specifications for this product differ by pitch
and material-mix, please contact our Sales Department
for detailed information.

Series IC357 and IC402 (Open Top) Quad Flat Package (QFP) with 2-Point Contact Type

0.4 to 0.8mm Pitch

Specifications

Insulation Resistance:	1,000MΩ min. at 500V DC, pitch 0.4 to 0.8
Dielectric Withstanding Voltage:	100V AC for 1 minute, pitch 0.5 to 0.8
Contact Resistance:	30mΩ max. at 10mA/20mV max.
Operating Temperature Range:	-40°C to +150°C
Mating Cycles:	10,000 insertions min.
Contact Force:	20g to 45g per pin

Materials and Finish

Housing:	Polyetherimide (PEI), glass-filled Polyethersulphone (PES) glass-filled
Contacts:	Beryllium Copper (BeCu)
Plating:	Gold over Nickel



Part Number (Details)

IC357 - 100 4 - 002 *

Series No.

No. of Contact Pins

Number of Sides
with Contacts

Design Number

Positioning Pin
N = Without Positioning Pin
P = With Positioning Pin

Series IC234 (Open Top) Quad Flat Package (QFP) with Shoulder Contact Type

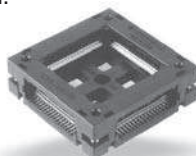
0.4 to 0.8mm Pitch

Specifications

Insulation Resistance:	1,000MΩ min. at 100V DC pitch 0.4, 0.5 1,000MΩ min. at 500V DC pitch 0.65, 0.8
Dielectric Withstanding Voltage:	100V AC for 1 minute pitch 0.4, 0.5 500V AC for 1 minute pitch 0.65 700V AC for 1 minute pitch 0.8
Contact Resistance:	30mΩ max. at 10mA/20mV max.
Operating Temperature Range:	-40°C to +150°C
Contact Force:	20g to 80g per pin
Mating Cycles:	10,000 insertions min.

Materials and Finish

Housing:	Polyetherimide (PEI), glass-filled Polyethersulphone (PES) glass-filled
Contacts:	Beryllium Copper (BeCu)
Plating:	Gold over Nickel



Part Number (Details)

IC234 - 120 4 - 017 *

Series No.

No. of Contact Pins

Number of Sides
with Contacts

Design Number

Positioning Pin
N = Without Positioning Pin
P = With Positioning Pin
K = Protection Key **

** Protection Key: Prevents IC from releasing during transportation

Series IC200 / IC201 / IC216 / IC217 / IC218 / IC248 (Open Top) Quad Flat Packages (QFP)

0.4 to 0.8mm Pitch

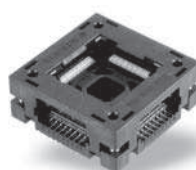
Specifications

Insulation Resistance:	1,000MΩ min. at 500V DC or 1,000MΩ min. at 100V DC
Dielectric Withstanding Voltage:	100/500/700V AC for 1 minute
Contact Resistance:	30mΩ max. at 10mA/20mV max.
Operating Temperature Range:	-40°C to +170°C and -40°C to +150°C
Contact Force:	20g to 80g per pin
Mating Cycles:	10,000 insertions min.

The information above is typical for this Series
for individual specifications please contact Yamaichi

Materials and Finish

Housing:	Polyetherimide (PEI), glass-filled Polyphenylenesulfide (PPS), glass-filled
Contacts:	Beryllium Copper (BeCu)
Plating:	Gold over Nickel



Part Number (Details)

IC200	-	128	4	-	001	*	-	*
Series No.								
No. of Contact Pins								
Number of Sides with Contacts								
Design Number								
Positioning Pin:								
N = Without Positioning Pin								
P = With Positioning Pin								
Protection Key**								
K = With Protection Key								
Unmarked = Without Protection Key								

**Protection Key: Prevents IC from releasing during transportation

Series IC500 (Open Top) Quad Flat Package (QFP) with 2-Point Contact Type

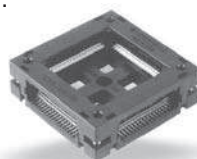
0.5 to 0.8mm Pitch

Specifications

Insulation Resistance:	1,000MΩ min. at 100V DC pitch 0.5 1,000MΩ min. at 500V DC pitch 0.65, 0.8
Dielectric Withstanding Voltage:	100V AC for 1 minute pitch 0.5 500V AC for 1 minute pitch 0.65 700V AC for 1 minute pitch 0.8
Contact Resistance:	30mΩ max. at 10mA/20mV max.
Operating Temperature Range:	-40°C to +150°C
Contact Force:	20g to 80g per pin
Mating Cycles:	10,000 insertions min.

Materials and Finish

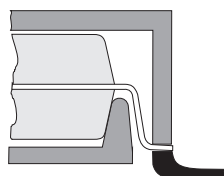
Housing:	Polyetherimide (PEI), glass-filled Polyethersulphone (PES) glass-filled
Contacts:	Beryllium Copper (BeCu)
Plating:	Gold over Nickel



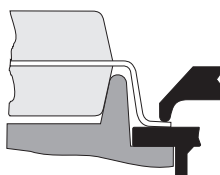
Part Number (Details)

IC500	-	064	4	-	008	*
Series No.						
No. of Contact Pins						
Number of Sides with Contacts						
Design Number						
Positioning Pin						
N = Without Positioning Pin						
P = With Positioning Pin						
K = Protection Key						

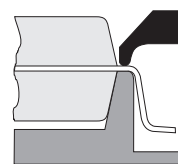
Contact Styles



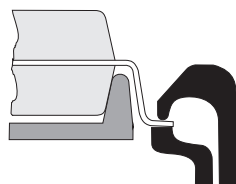
Series IC51



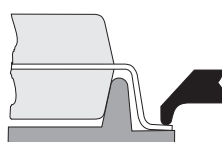
Series IC357



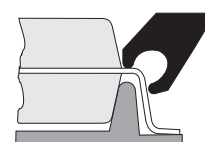
Series IC234



Series IC (kelvin)

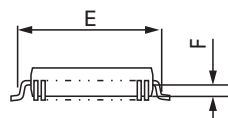
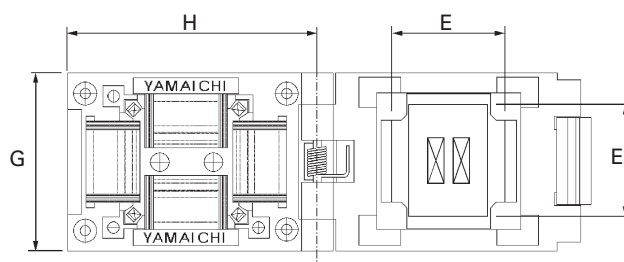
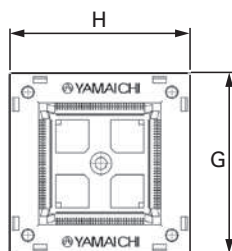
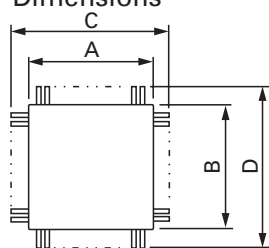


Series IC2**



Series IC500

Applicable Dimensions

Outline IC Body
DimensionsOutline Open Top
Socket DimensionsOutline Clamshell
Socket Dimensions

0.40mm Pitch

Part Number	Pitch	Pin Count	IC Dimensions				Socket Dimensions G X H	Package Type CL= Clamshell OT = Open Top
			Body A x B	Tip-to-Tip C x D	Parallel Clamp E	1/2 - IC height F		
IC51-0644-1972	0.4	64	7.0 x 7.0	9.0 x 9.0	8.25	-	35.0 x 32.0	CL
IC234-0804-055	0.4	80	10.0 x 10.0	12.0 x 12.0	-	0.7375	30.0 x 30.0	OT
IC234-1004-045	0.4	100	12.0 x 12.0	14.0 x 14.0	-	0.56	35.0 x 32.0	OT
IC51-1004-1919-*	0.4	100	12.0 x 12.0	14.0 x 14.0	13.30	-	36.0 x 42.5	CL
IC234-1204-022 *	0.4	120	14.0 x 14.0	16.0 x 16.0	-	0.762	34.0 x 34.0	OT
IC51-1204-1596	0.4	120	14.0 x 14.0	16.0 x 16.0	15.35	-	36.0 x 42.5	CL
IC51-1204-1812	0.4	120	14.0 x 14.0	16.0 x 16.0	-	-	36.0 x 42.5	CL
IC234-1284-043 *	0.4	128	14.0 x 14.0	16.0 x 16.0	-	0.56	34.0 x 34.0	OT
IC357-1284-056	0.4	128	14.0 x 14.0	16.0 x 16.0	-	0.65	34.0 x 34.0	OT
IC357-1284-076	0.4	128	14.0 x 14.0	16.0 x 16.0	-	0.45	34.0 x 34.0	OT
IC51-1284-1702	0.4	128	14.0 x 14.0	16.0 x 16.0	15.40	-	36.0 x 42.5	CL
IC51-1284-1702-2	0.4	128	14.0 x 14.0	16.0 x 16.0	15.40	-	36.0 x 42.5	CL
IC51-1284-1788	0.4	128	14.0 x 14.0	16.0 x 16.0	15.30	0.70	39.0 x 42.5	CL
IC234-1444-053 *	0.4	144	16.0 x 16.0	18.0 x 18.0	-	0.54	36.0 x 36.0	OT
QFP11T144-001	0.4	144	16.0 x 16.0	18.0 x 18.0	17.20	-	39.0 x 42.5	CL
IC234-1564-038P-2	0.4	156	14.0 x 14.0	16.0 x 16.0	-	0.76	38.0 x 44.0	OT
IC234-1764-059 *	0.4	176	20.0 x 20.0	22.0 x 22.0	-	0.67	40.0 x 40.0	OT
IC51-1764-1995	0.4	176	14.0 x 20.0	22.0 x 22.0	21.30	-	46.0 x 50.0	CL
IC51-1764-1995-6	0.4	176	20.0 x 20.0	22.0 x 22.0	21.20	-	46.0 x 50.0	CL
IC234-2164-050 *	0.4	216	20.0 x 20.0	26.0 x 26.0	-	0.67	44.0 x 44.0	OT
IC234-2164-066-*	0.4	216	20.0 x 20.0	26.0 x 26.0	-	0.67	44.0 x 44.0	OT
IC51-2164-1887	0.4	216	24.0 x 24.0	26.0 x 26.0	25.30	-	50.0 x 48.0	CL
IC51-2164-1887-10	0.4	216	24.0 x 24.0	26.0 x 26.0	25.30	-	50.0 x 48.0	CL
IC234-2564-020 *	0.4	256	24.0 x 24.0	30.0 x 30.0	-	0.67	48.0 x 48.0	OT
IC234-2564-078 *	0.4	256	24.0 x 24.0	30.0 x 30.0	-	0.67	48.0 x 48.0	OT
IC51-2564-1668	0.4	256	28.0 x 28.0	31.2 x 31.2	30.00	-	56.0 x 62.0	CL
IC51-2564-1668-10	0.4	256	28.0 x 28.0	30.0 x 30.0	29.40	-	56.0 x 62.0	CL
IC51-2564-1668-6	0.4	256	27.2 x 27.2	29.8 x 29.8	30.00	-	56.0 x 62.0	CL
IC51-2564-1668-8	0.4	256	28.0 x 28.0	30.6 x 30.6	30.00	-	56.0 x 62.0	CL

0.50mm Pitch

IC51-0324-805	0.5	32	5.0 x 5.0	7.0 x 7.0	6.20	-	28.0 x 31.0	CL
IC234-0484-034 *	0.5	48	7.0 x 7.0	9.0 x 9.0	-	0.47	26.6 x 26.6	OT
IC234-0484-039 *	0.5	48	7.0 x 7.0	9.0 x 9.0	-	0.74	26.6 x 26.6	OT
IC357-0484-078 *	0.5	48	7.0 x 7.0	9.0 x 9.0	-	0.45	22.0 x 22.0	OT
IC51-0484-806	0.5	48	7.0 x 7.0	9.0 x 9.0	8.20	-	29.0 x 32.0	CL
IC51-0484-806-2	0.5	48	7.0 x 7.0	9.0 x 9.0	8.30	-	29.0 x 32.0	CL
IC201-0644-003 *	0.5	64	10.0 x 10.0	12.0 x 12.0	-	0.70	30.0 x 36.0	OT
IC201-0644-040 *	0.5	64	10.0 x 10.0	12.0 x 12.0	-	0.67	28.7 x 28.7	OT
IC234-0644-027 *	0.5	64	10.0 x 10.0	12.0 x 12.0	-	0.66	29.6 x 29.6	OT
IC234-0644-122 *	0.5	64	10.0 x 10.0	12.0 x 12.0	-	0.66	29.6 x 29.6	OT



0.50mm Pitch (cont'd)

Part Numbers	Pitch	Pin Count	A x B	C x D	E	F	G x H	Type
IC357-0644-068	0.5	64	10.0 x 10.0	12.0 x 12.0	-	0.6375	26.2 x 26.2	OT
IC500-0644-008	0.5	64	10.0 x 10.0	12.0 x 12.0	-	0.67	29.6 x 29.6	OT
IC51-0644-807	0.5	64	10.0 x 10.0	12.0 x 12.0	11.30	-	32.0 x 35.0	CL
IC51-807 AC-15764	0.5	64	10.0 x 10.0	13.2 x 13.2	12.00	-	32.0 x 35.0	CL
IC201-0804-014 *-*	0.5	80	12.0 x 12.0	14.0 x 14.0	-	0.62	29.0 x 29.0	OT
IC234-0804-011 *	0.5	80	12.0 x 12.0	14.0 x 14.0	-	0.45	29.0 x 29.0	OT
IC234-0804-026 *	0.5	80	12.0 x 12.0	14.0 x 14.0	-	0.67	31.6 x 31.6	OT
IC357-0804-074	0.5	80	12.0 x 12.0	14.0 x 14.0	-	0.6375	29.0 x 29.0	OT
IC357-0804-096	0.5	80	12.0 x 12.0	14.0 x 14.0	-	0.6375	29.0 x 29.0	OT
IC51-0804-808	0.5	80	12.0 x 12.0	14.0 x 14.0	13.30	-	34.0 x 37.0	CL
IC51-0804-808-2	0.5	80	12.0 x 12.0	14.0 x 14.0	13.20	-	34.0 x 37.0	CL
IC51-0804-808-4	0.5	80	12.0 x 12.0	14.0 x 14.0	13.40	-	34.0 x 37.0	CL
IC201-1004-008 *-*	0.5	100	14.0 x 14.0	16.0 x 16.0	-	0.60	32.2 x 31.0	OT
IC201-1004-043 *	0.5	100	14.0 x 14.0	16.0 x 16.0	-	0.45	31.0 x 31.0	OT
IC234-1004-023 *	0.5	100	14.0 x 14.0	16.0 x 16.0	-	0.67	33.6 x 33.6	OT
IC357-1004-002	0.5	100	14.0 x 14.0	16.0 x 16.0	-	0.50	31.9 x 31.9	OT
IC357-1004-014	0.5	100	14.0 x 14.0	16.0 x 16.0	-	0.55	31.9 x 31.9	OT
IC357-1004-053	0.5	100	14.0 x 14.0	16.0 x 16.0	-	0.55	31.9 x 31.9	OT
IC402-1004-002*	0.5	100	14.0 x 20.0	16.0 x 22.0	-	0.70	29.8 x 23.8	OT
IC500-1004-004	0.5	100	14.0 x 14.0	16.0 x 16.0	-	0.68	33.6 x 33.6	OT
IC51-1004-809	0.5	100	14.0 x 14.0	16.0 x 16.0	15.30	-	39.0 x 39.0	CL
IC51-1004-809-14	0.5	100	14.0 x 14.0	16.0 x 16.0	15.30	-	39.0 x 39.0	CL
IC51-1004-809-2	0.5	100	14.0 x 14.0	16.0 x 16.0	15.30	-	39.0 x 39.0	CL
IC51-1004-809-6	0.5	100	14.0 x 14.0	16.0 x 16.0	15.30	-	39.0 x 39.0	CL
IC51-809 KS-13929	0.5	100	14.0 x 14.0	17.2 x 17.2	15.90	-	39.0 x 39.0	CL
IC234-1204-058 *	0.5	120	16.0 x 16.0	18.0 x 18.0	--	0.67	35.6 x 35.6	OT
IC51-1204-1652	0.5	120	15.93 x 15.93	17.35 x 17.35	17.60	-	40.0 x 43.0	CL
IC201-026 KS-13784	0.5	128	20.0 x 20.0	22.0 x 22.0	-	0.69	37.0 x 36.7	OT
IC248-1284-007 *-*	0.5	128	14.0 x 20.0	16.0 x 22.0	-	0.67	37.4 x 43.4	OT
IC357-1284-033*	0.5	128	14.0 x 20.0	22.0 x 22.0	-	1.10	31.0 x 37.0	OT
IC500-1284-007	0.5	128	14.0 x 20.0	16.0 x 22.0	-	0.625	33.6 x 39.6	OT
IC51-1284-1433	0.5	128	14.0 x 20.0	16.0 x 22.0	15.2x21.2	-	46.0 x 43.0	CL
IC51-1284-1433-10	0.5	128	14.0 x 20.0	17.2 x 23.2	16.4x22.4	-	46.0 x 43.0	CL
IC51-1284-1433-19	0.5	128	14.0 x 20.0	17.9 x 23.9	16.4x22.4	-	46.0 x 43.0	CL
IC201-1444-026 *-2	0.5	144	20.0 x 20.0	22.0 x 22.0	-	0.69	37.0 x 37.0	OT
IC201-1444-034 *	0.5	144	20.0 x 20.0	22.0 x 22.0	-	0.65	37.0 x 37.0	OT
IC234-1444-007 *	0.5	144	20.0 x 20.0	22.0 x 22.0	-	-	-	OT
IC234-1444-016 *	0.5	144	20.0 x 20.0	22.0 x 22.0	-	0.8370	37.0 x 37.0	OT
IC402-1444-003*	0.5	144	20.0 x 20.0	22.0 x 22.0	21.30	0.80	30.0 x 30.0	OT
IC500-1444-002P-2	0.5	144	20.0 x 20.0	22.0 x 22.0	-	0.68	37.0 x 37.0	OT
IC51-1444-1354	0.5	144	20.0 x 20.0	22.0 x 22.0	21.30	1.00	43.0 x 47.0	CL
IC51-1444-1354-7	0.5	144	20.0 x 20.0	22.0 x 22.0	21.30	0.50	43.0 x 47.0	CL
IC51-1604-1350	0.5	160	24.0 x 24.0	26.0 x 26.0	25.30	-	46.0 x 50.0	CL
IC201-1764-033	0.5	176	24.0 x 24.0	26.0 x 26.0	-	0.67	40.0 x 46.0	OT
IC234-1764-002 *	0.5	176	24.0 x 24.0	26.0 x 26.0	-	1.00	46.0 x 46.0	OT
IC234-1764-005 *	0.5	176	24.0 x 24.0	26.0 x 26.0	-	1.00	46.0 x 46.0	OT
IC234-1764-121 *	0.5	176	24.0 x 24.0	26.0 x 26.0	-	1.00	40.0 x 46.0	OT
IC357-1764-061	0.5	176	24.0 x 24.0	26.0 x 24.0	-	0.615	41.0 x 41.0	OT
IC357-1764-081	0.5	176	24.0 x 24.0	26.0 x 24.0	-	0.6375	36.0 x 36.0	OT
IC357-1764-087	0.5	176	24.0 x 24.0	26.0 x 24.0	-	0.735	41.0 x 41.0	OT
IC357-1764-094	0.5	176	24.0 x 24.0	26.0 x 24.0	-	0.735	41.0 x 41.0	OT
IC51-1764-1505	0.5	176	24.0 x 24.0	26.0 x 26.0	25.30	0.90	46.0 x 50.0	CL
IC51-1764-1505-10	0.5	176	24.0 x 24.0	26.0 x 26.0	25.30	0.50	46.0 x 50.0	CL
IC51-1764-1505-5	0.5	176	24.0 x 24.0	26.0 x 26.0	25.30	0.50	46.0 x 50.0	CL
IC200-2084-009 *-*	0.5	208	28.0 x 28.0	31.2 x 31.2	-	1.40	51.2 x 52.2	OT
IC200-2084-010 *-*	0.5	208	28.0 x 28.0	30.6 x 30.6	-	1.40	50.6 x 50.6	OT
IC201-2084-001 *-*	0.5	208	28.0 x 28.0	30.0 x 30.0	-	1.50	45.0 x 45.0	OT
IC201-2084-029 *	0.5	208	28.0 x 28.0	30.6 x 30.6	-	1.67	45.6 x 45.6	OT
IC201-2084-096	0.5	208	28.0 x 28.0	30.0 x 30.0	-	0.55	45.0 x 45.0	OT
IC357-2084-019P-2	0.5	208	28.0 x 28.0	30.6 x 30.6	-	-	45.6 x 45.6	OT

cont'd next page