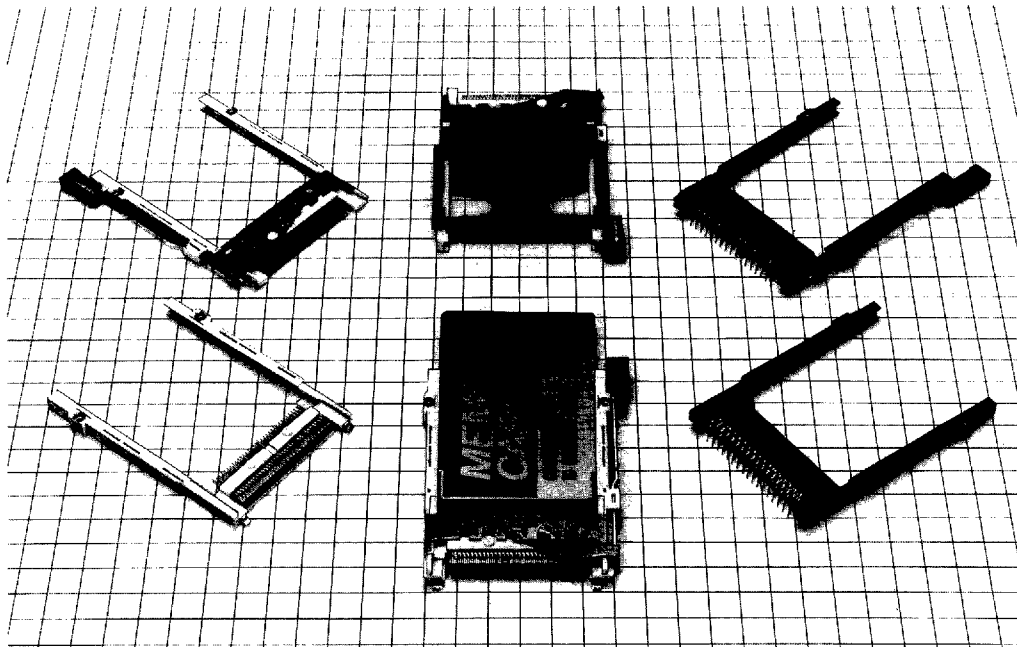


# HRS IC7 Series

## Miniature, Lightweight Pin Connectors Suitable for PCMCIA Type III Cards JEIDA Ver. 4.2 Compliant

### ■ GENERAL

The IC7 Series of miniature, lightweight 68-pin connectors complies with JEIDA Ver. 4.2 and is suitable for use with PCMCIA (PC Memory Card International Association) type III cards.



### ■ FEATURES

- (1) Smaller and thinner than our previous product at 85 mm long, 65 mm wide, and 5.4 mm thick.
- (2) Forty-seven percent lighter than our previous product at a weight of approximately 12.5 gf.
- (3) Equipped with an eject button for smooth removal of cards.
- (4) Two types of eject button, either left or right, are available to suit the application.
- (5) There is also a reverse type for mounting on the back surface of the board.
- (6) Equipped with a frame ground terminal.
- (7) Types available for dip and SMT board mounting methods.
- (8) The SMT type can be mounted on both sides of the board and can also be used as a 2-slot connector.
- (9) A type equipped with stand-offs (2.2 mm) which permits parts to be mounted under the connector is also available.
- (10) A space-saving type without an eject mechanism is also available.
- (11) Types for use with low voltage (3.3 V) cards are also now available.
- (12) An absorption plate mounting product which can be used with automatic mounting is also now available in the SMT type.

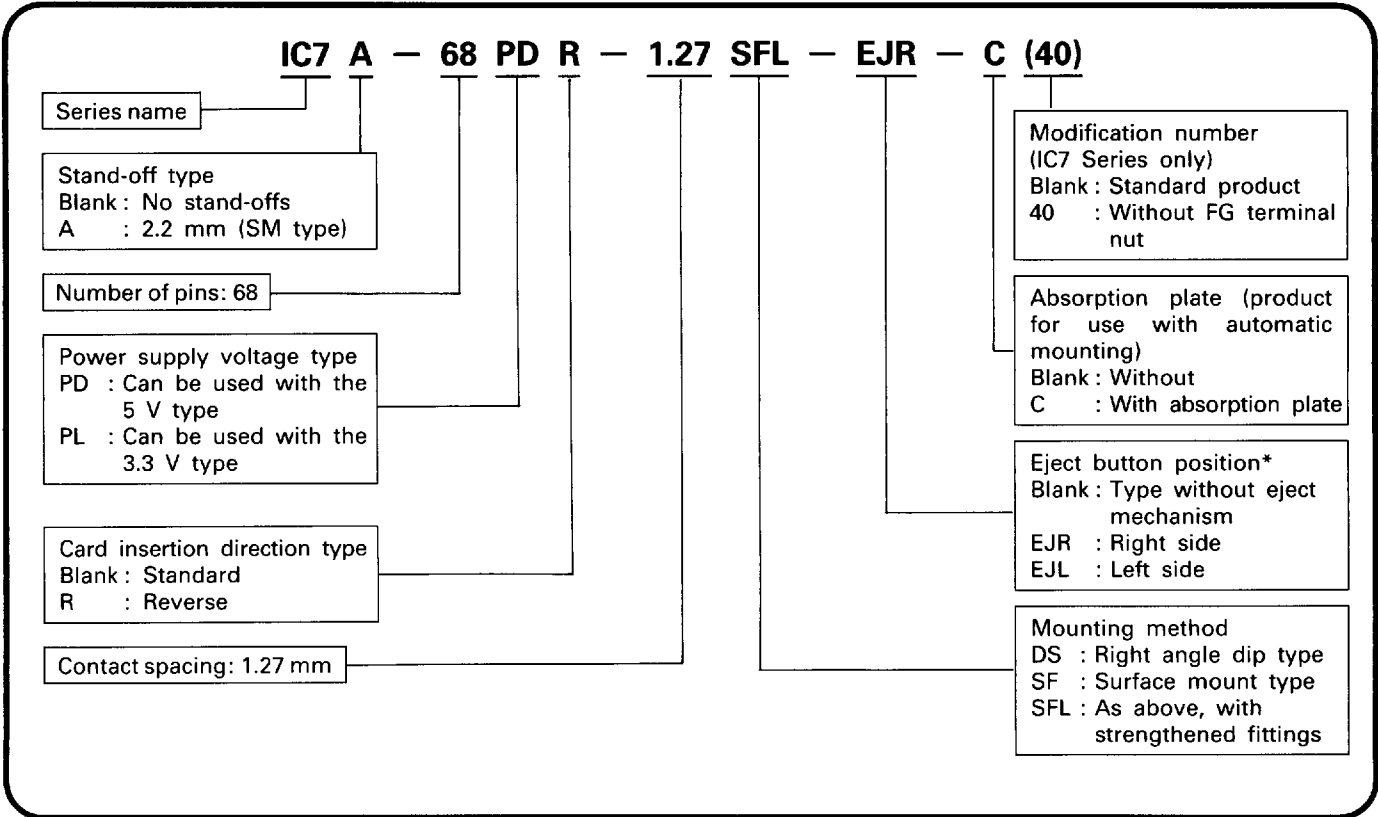
## ■ MATERIALS AND PROCESSING

Item		Material	Finish		Note
Insulation	Connector portion	Dip type	PBT resin	Black	UL94V-0
		SMT type	PPS resin	Light brown	UL94V-0
	Eject button		Polyamide resin	Black	UL94V-0
Pins	Connector portion	Brass	Contact portion	Gold plating	-
			Mounting portion	Solder plating	-
	Frame ground terminal	Phosphor bronze	Contact portion	Gold plating	-
			Other	Nickel plating	-
Eject section fittings		SUS			-
Nuts		Copper	Nickel plating		-
Locking pins		Phosphor bronze	Solder plating		-
Strengthened fittings		Brass	Solder plating		-
Absorption plate		PPS resin	Brown		UL94V-0

## ■ ELECTRICAL PERFORMANCE

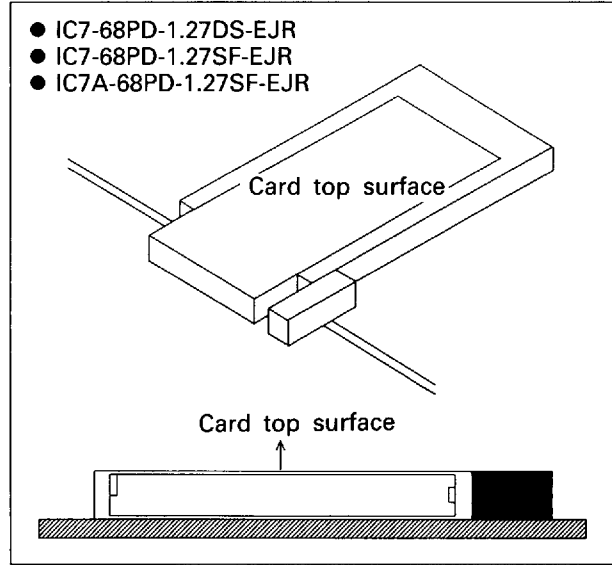
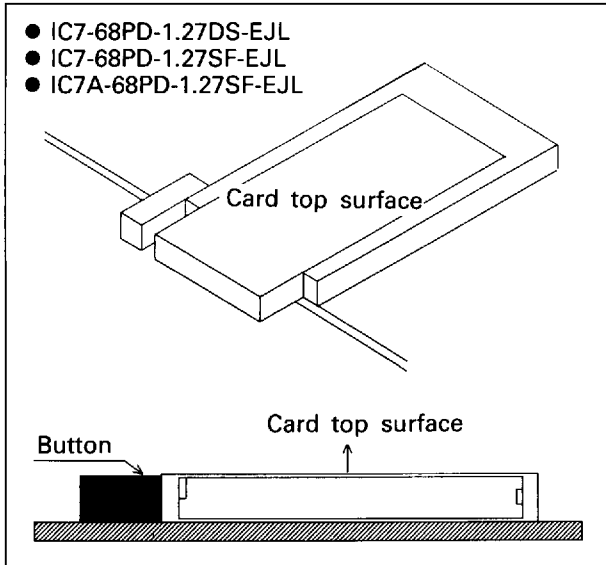
Item	Conditions	Rating
Current capacity	Per pin	0.5 A
Withstand voltage	One minute at rated value	500 V AC
Insulation resistance	At 500 V DC	1,000 MΩ or greater
Contact resistance	At 1 mA DC	40 mΩ or less

## ■ STRUCTURE OF THE PRODUCT NUMBER

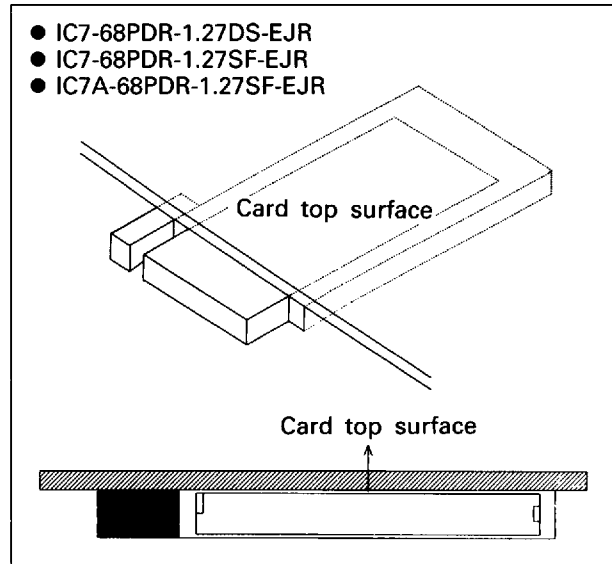
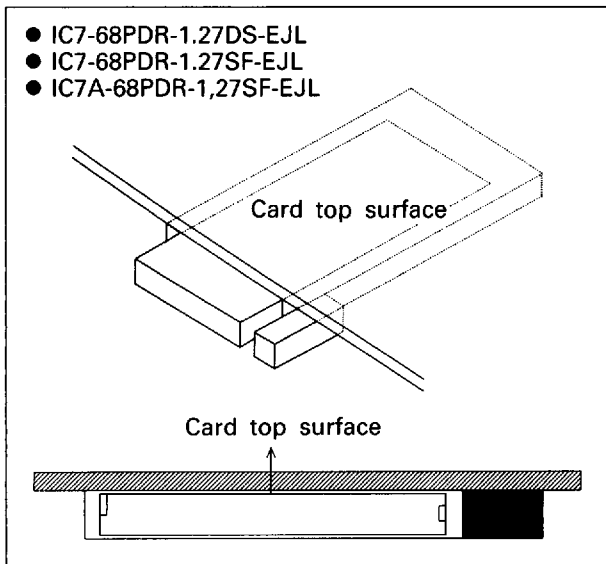


## ◆ Examples of Connector Mounting

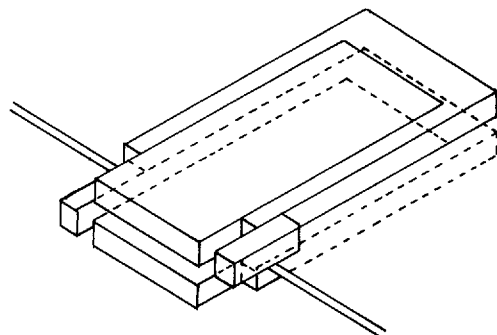
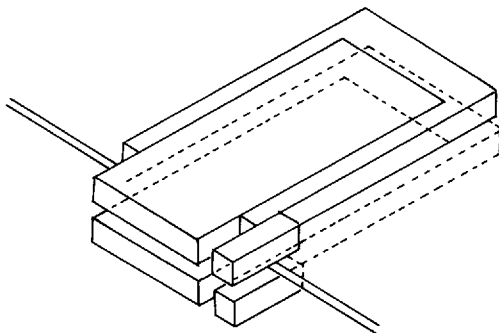
### <Standard type>



### <Reverse type>

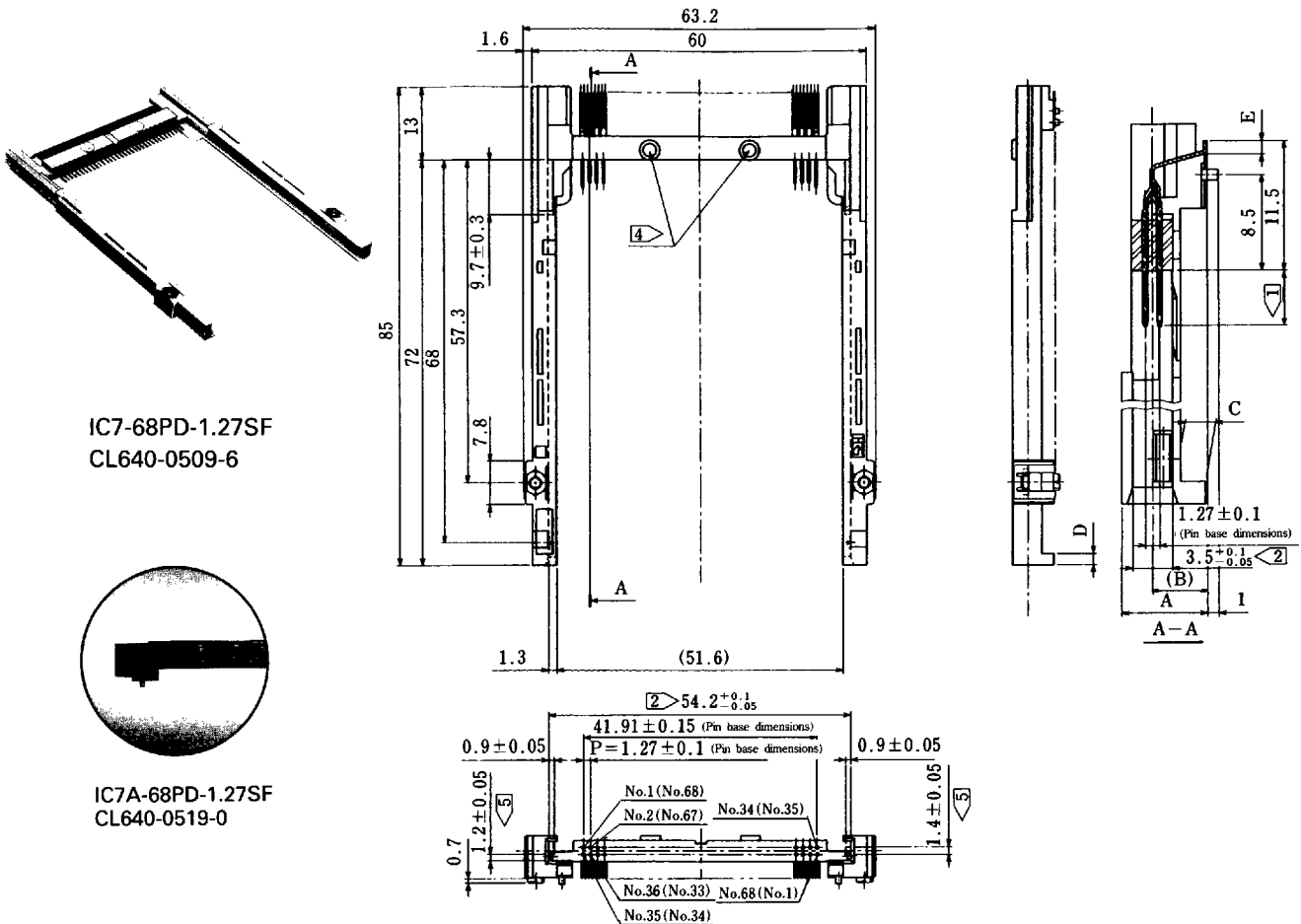


### Example of Mounting on Both Sides of Board (SMT Type)

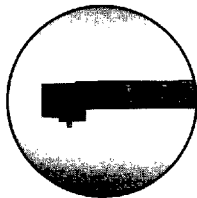


# 68-CONTACT PIN CONNECTORS

- Surface mount type
- Type without eject mechanism
- Standard type and reverse type



IC7-68PD-1.27SF  
CL640-0509-6



IC7A-68PD-1.27SF  
CL640-0519-0

Table 1 1

Pin No.	Pin Length
1, 17, 34, 35, 51, 68	5.0 ± 0.1
36, 67	3.5 ± 0.1
Other than above	4.25 ± 0.1

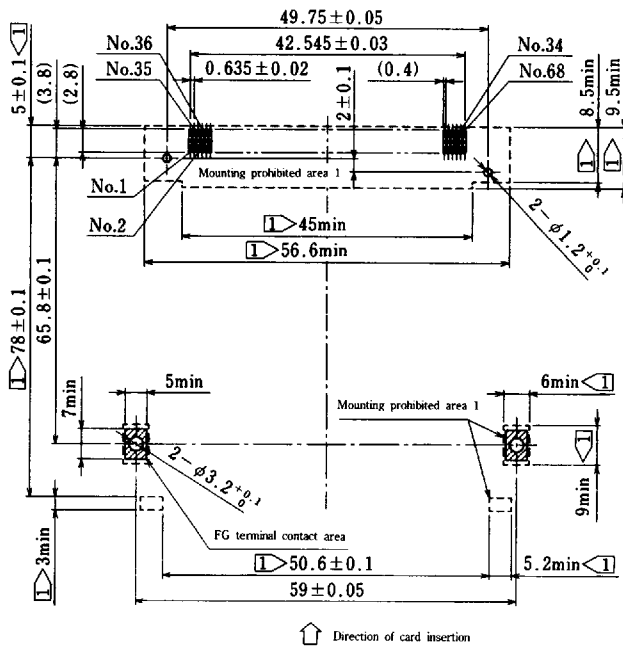
Unit: mm

HRS No.	Product No.	A	B	C	D	E
CL640-0509-6	IC7-68PD-1.27SF	5.4	2.7	0	0	1.2
<span style="border: 1px solid black; padding: 0 2px;">4</span> CL640-0541-9	IC7-68PDR-1.27SF	5.4	2.7	0	0	1.2
CL640-0519-0	IC7A-68PD-1.27SF	7.6	4.9	2.2	2	1.19

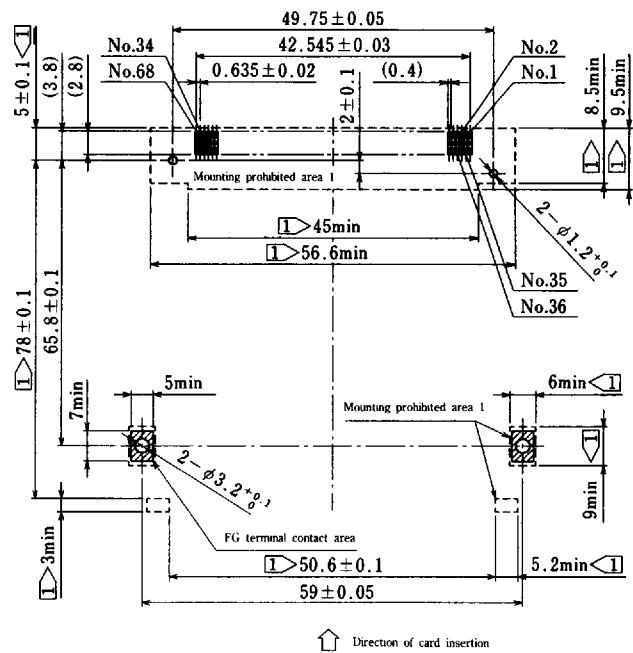
- NOTE: 1 The lengths of pins on the engagement side are indicated in Table 1.
- 2 The applicable range of indicated dimensions ( $54.2^{+0.1}_{-0.05}$ ,  $3.5^{+0.1}_{-0.05}$ ) are taken as 10 mm from the bottom.
- 3 The frame ground (FG) terminal of this product is pressed into contact with the ground area of the board with a screw. Employed from the bottom surface of the board, a screw (M2 × 0.4), flat washer, and spring washer are securely tightened to accomplish this.  
(For details, see the screw fastening example on Page 26.)
- 4 Pay attention to the pin numbers since the reverse type is marked "R".  
See the numbers in parentheses ( ) for the pin numbers of the reverse type.
- 5 The guide groove dimensions of the reverse type are left-right reversed.

## PCB Layout (Mounting Side)

Standard Type



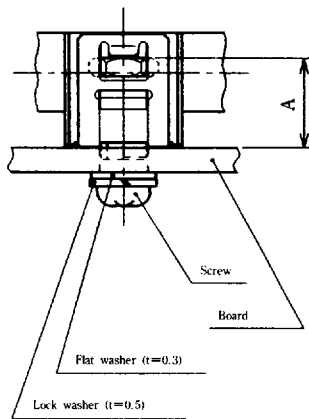
Reverse Type



NOTE: 1 The IC7A Series has a mounting space for parts with a maximum height of 2 mm located under the connector section. Note that mounting of parts is prohibited in "Mounting prohibited area 1" inside the dotted lines.

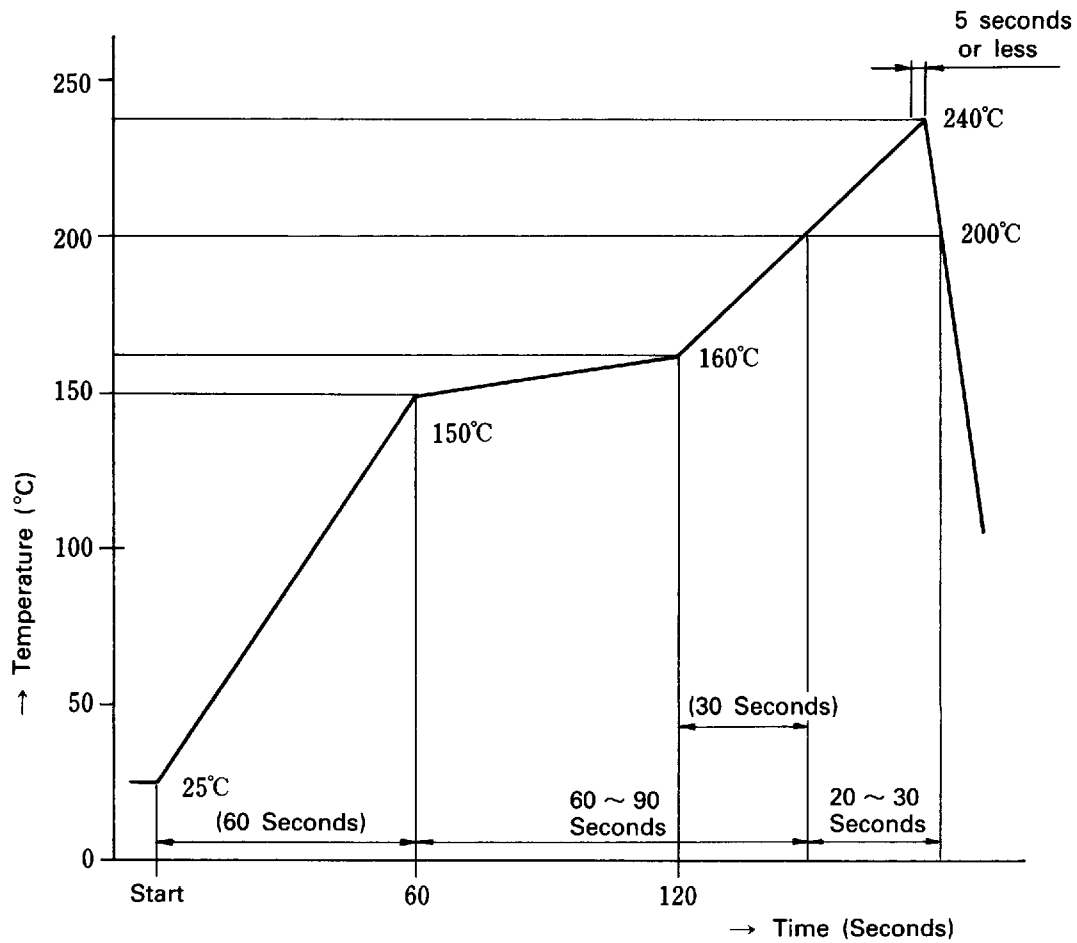
2 The entire surface of the mounting portion of the IC7 Series is a mounting prohibited area.

## Example of FG Terminal Screw Fastening (Recommended)



Series Name	A
IC7	4.1
IC7A	6.3

## ◆ Temperature Profile (Reference)



### Applicable Conditions

Reflow system: IR Reflow

Solder: Cream type ..... 63 Sn/37 Pb (Flux component of 11 wt%)

Test board: Glass epoxy ..... 100 × 100 × 1.6 mm

Metal mask:  $t = 0.15$  mm

Number of reflow cycles: 1 time

This temperature profile is recommended. It is possible that it may change somewhat depending on the type and amount of cream solder.