



Unit : mm

Dimensions Code	Nominals	Applicable Shafts d <sub>1</sub>	Dimensions of Retaining Rings				Groove Dimensions (Ref.)						
			Internal Diameter d	External Diameter D	H	Thickness t	Groove Diameter d <sub>2</sub>	With m	n Min.				
※ 12013	1.3	1.5~2	1.3	0 -0.07	5	±0.1	1	0.4 ±0.05	1.3	+0.05 0	0.5	1	
※ 12913	1.3S	1.5~2	1.3		3.7		1		0.25		1.3		0.3
※ 12014	1.4	2~2.5	1.4		3.5		1.1		0.3		1.4		0.4
※ 12016	1.6	2~2.8	1.6	3.5	1.2	0.3	1.6	0.4					
※ 12019	1.9	2.5~3	1.9	6.5	1.5	±0.05	0.5	1.9	0.6				
※ 12819	1.9S	2.5~3	1.9	4.7	1.5	±0.05	0.4	1.9	0.5				
※ 12020	2.0	3~4	2	6.5	1.6	±0.05	0.4	2	0.5				
※ 12023	2.3	3~4	2.3	5.6	1.8	±0.05	0.4	2.3	0.5				
※ 12024	2.4	3.5~4.5	2.4	5.8	1.9	±0.05	0.4	2.4	0.5				
※ 12025	2.5	4~5	2.5	5.2	2	±0.08	0.4	2.5	0.5				
※ 12029	2.9	4.5~6	2.9	7.2	2.3	±0.08	0.65	2.9	0.75				
※ 12030	3.0	4.5~6	3	8	2.4	±0.08	0.5	3	0.6				
※ 12031	3.1	4.5~6	3.1	9.5	2.5	±0.2	0.5	3.1	0.6				
※ 12033	3.3	5~7	3.3	10.5	2.7	±0.2	0.5	3.3	0.6				
※ 12036	3.6	5~7	3.6	10.5	2.9	±0.2	0.5	3.6	0.6				
※ 12037	3.7	5~7	3.7	8.5	3	±0.1	±0.05	0.65	3.7	0.75			
※ 12038	3.8	5~7	3.8	10.5	2.4	±0.1	0.5	3.8	0.6				
※ 12040	4.0	6~8	4	10	3.3	±0.1	0.6	4	0.7				
※ 12041	4.1	7~9	4.1	11	3.6	±0.1	0.4	4.1	0.5				
※ 12045	4.5	7~9	4.5	10.5	3.8	±0.1	0.5	4.5	0.6				
※ 12047	4.7	7~9	4.7	11	3.8	±0.1	0.6	4.7	0.7				
※ 12060	6.0	7~9	6	12	4.9	±0.15	0.6	6	0.7				
※ 12070	7.0	8~11	7	14	5.7	±0.15	0.9	7	1				
※ 12076	7.6	9~12	7.6	16.8	6.2	±0.15	0.7	7.6	0.8				
※ 12080	8.0	9~12	8	16	6.5	±0.15	1	8	1.2				
※ 12090	9.0	10~14	9	18.5	7.7	±0.15	1	9	1.2				
※ 12120	12.0	13~18	12	24	10.4	±0.15	1	12	1.2				
※ 12146	14.6	15.5~20	14.6	28.4	12.5	±0.15	1.2	14.7	1.4				
※ 12209	20.9	22~26	20.9	38	17	±0.15	±0.06	21	1.4				

Notes ※: Stacked package versions are also available ( product code is 146 and first two digit of dimensions code change into 46 )

Product code	112	Material code	02...SUS304-CSP		Part Number Structure (Standardized Product Code)			
					Product	Surface	Material	Dimensions code
Surface code	01...Burnished	Hardness	HRC 37 ~ 46		①①②②②①	①	①①①①①①	