

World-class technology
 with "High Temperature at +150°C", "100MHz Wide Frequency Bandwidth" and "φ1mm Extreme thin cable diameter "
Total of 101 models

Rogowski Coil Current Probe
SS-280 Series
SS-290 Series
SS-620 Series
SS-660 Series
SS-680 Series

SS-280A

30A	60A	120A	300A
600A	1.2kA	3.0kA	
6.0kA	12kA	30kA	

Coil length: 84mm ±4mm
 Frequency BW: 30MHz
 Max. Voltage: 1.2kv
 Temperature range: -40°C ~ +125°C
 max 1.7mm

SS-660P

60A	120A	300A
600A	1.2kA	

Coil length: 84mm ±4mm
 Frequency BW: 30MHz
 Max. Voltage: 1.2kv
 Temperature range: -40°C ~ +125°C
 max 1.2mm

SS-660

60A	120A	300A
600A	1.2kA	

Coil length: 84mm ±4mm
 Frequency BW: 30MHz
 Max. Voltage: 600v
 Temperature range: -40°C ~ +125°C
 max 1.0mm

SS-280A-H

30A	60A	120A	300A
600A	1.2kA	3.0kA	
6.0kA	12kA	30kA	

Coil length: 84mm ±4mm
 Frequency BW: 30MHz
 Max. Voltage: 1.2kv
 Temperature range: -40°C ~ +150°C
 max 1.7mm

SS-680

120A	300A
600A	1.2kA
3.0kA	6.0kA
12kA	

Coil length: Inner 14mm, Outer 24mm
 Thickness: 5.8mm
 Frequency BW: 100MHz
 Max. Voltage: 1.2kv
 Temperature range: -10°C ~ +70°C

SS-620

60A	120A	300A
600A	1.2kA	3.0kA
6.0kA	12kA	30kA

Coil length: S:100mm, M:200mm, L:300mm, XL:500mm
 Frequency BW: S type 25MHz, M type 20MHz, L type 15MHz, XL type 10MHz
 Max. Voltage: 5kv
 Temperature range: -40°C ~ +125°C
 max 3.0mm

SS-290

1.2kA	3.0kA	6.0kA
12kA	30kA	60kA
120kA		

Coil length: S:300mm, M:500mm, L:700mm, XL:1100mm
 Frequency BW: S type 20MHz, M type 15MHz, L type 10MHz, XL type 5MHz
 Max. Voltage: 10kv
 Temperature range: -40°C ~ +125°C
 max 8.5mm

SS-680 Series



- Achieved 100MHz Measurement Frequency Bandwidth, suitable for evaluation of High-Speed Power Devices, such as SiC and GaN, etc.
- Downsizing and Low-profile of the Probe Head contribute Low-Ls Measurement.
- Max. 12,000A Measurement Capability. High Current Test can be performed without worrying about Magnetic Saturation.
- Shielded Sensor Coil contributes to High-Performance against external environment, such as external noises, etc.
- Sensor Coil Temperature Range : -10°C to +70°C
- Max. Peak Voltage : 1.2kV

Frequency BW 100MHz

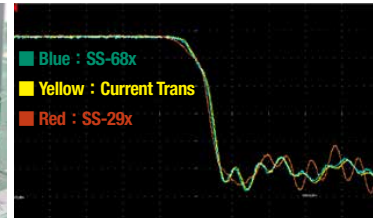
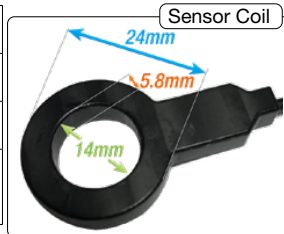
Max. Current 12,000A

Low-Ls Measurement

SiC · GaN devices

Non-magnetic saturation

Frequency bandwidth	100MHz
Temperature range (Sensor&cable)	-10°C~+70°C
Maximum peak voltage	1.2kV vs Earth ground
Sensor coil dimensions	Outer diameter : 24mm Inner diameter : 14mm Thickness : 5.8mm



Comparison

Model	IWATSU SS-68x	Current Trans	Other Rogowski
Frequency bandwidth	100MHz	70MHz	30MHz
Noise-tolerant	◎	◎	△
Size[Low-Ls]	○	△	◎
Max current	12,000A	10A	12,000A
Saturation	◎	×	◎

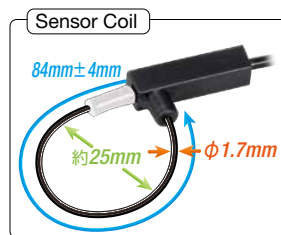
Model	Peak current [A]	Frequency BW [-3dB]	Sensitivity [mV/A]	Peak di/dt [kA/μs]	Noise [mV rms]	Absolute max. di/dt		
						Peak [kA/μs]	RMS [kA/μs]	
SS-683	120	65Hz ~ 100MHz	10	30	1.8	150	3.0	
SS-684	300	32Hz ~ 100MHz	5	85				
SS-685	600	15Hz ~ 100MHz	2	150				
SS-686	1,200	8Hz ~ 100MHz	1	90				
SS-687	3,000	5Hz ~ 50MHz	0.5	90				
SS-688	6,000	3Hz ~ 30MHz	0.2	90				
SS-689	12,000	2Hz ~ 30MHz	0.1	90				90
								90

※ Contact us for made-to-order specifications

※ SS-686/SS-687/SS-688/SS-689 : Production by order

SS-280A-H Series

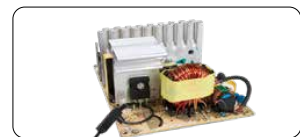
High Temperature +150°C



- Equipped with 1.7mm Thin Sensor Coil Wire Diameter, suitable for direct probing to TO Type MOSFET, IGBT Devices which are widely used for Power Electronics Equipment, such as Switching Power Supplies.
- Achieved 30MHz Measurement Frequency Bandwidth, suitable for observation of High-Speed Switching Waveforms.
- Measurement Range of 30A to 30,000A contributes to Wide Range Current Measurement.
- High Current Test can be performed without worrying about Magnetic Saturation.
- Sensor Coil Temperature Range : A-H Type -40°C to +150°C, A Type -40°C to +125°C

Frequency bandwidth	30MHz
Temperature range (Sensor&cable)	-40°C~+150°C
Maximum peak voltage	1.2kV
Sensor coil dimensions	84mm ± 4mm
Coil diameter	1.7mm (max.)

Probing example



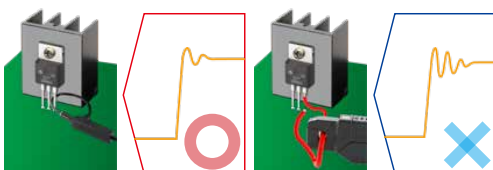
SS-280A Series

Model	30MHz
Temperature range (Sensor&cable)	-40°C~+125°C
Maximum peak voltage	1.2kV
Sensor coil dimensions	84mm ± 4mm
Coil diameter	1.7mm (max.)

Model	Peak current [A]	Frequency BW [-3dB]	Sensitivity [mV/A]	Peak di/dt [kA/μs]	Noise [mV rms]	Absolute max. di/dt	
						Peak [kA/μs]	RMS [kA/μs]
SS-281A / A-H	30	110Hz ~ 30MHz	200	2	3.5	80	1.0
SS-282A / A-H	60	65Hz ~ 30MHz	100	4	2.5	80	1.5
SS-283A / A-H	120	32Hz ~ 30MHz	50	8	2.0	80	1.5
SS-284A / A-H	300	9Hz ~ 30MHz	20	20	1.8	80	1.5
SS-285A / A-H	600	6Hz ~ 30MHz	10	40	1.8	80	1.5
SS-286A / A-H	1,200	3Hz ~ 30MHz	5	80/50	1.8	80/50	2.0
SS-287A / A-H	3,000	2Hz ~ 30MHz	2	80/50	1.4	80/50	2.0
SS-288A / A-H	6,000	2Hz ~ 30MHz	1	80/50	1.4	80/50	2.0
SS-289A / A-H	12,000	2Hz ~ 30MHz	0.5	80/50	1.4	80/50	2.0
SS-280A / A-H	30,000	2Hz ~ 30MHz	0.2	80/50	1.4	80/50	0.5

※ Contact us for made-to-order specifications

※ SS-280A/AH: Production by order

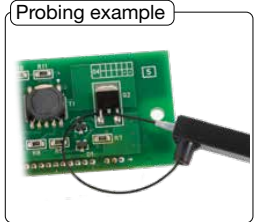


SS-660 / SS-660P Series

Extreme thin coil $\phi 1\text{mm}$

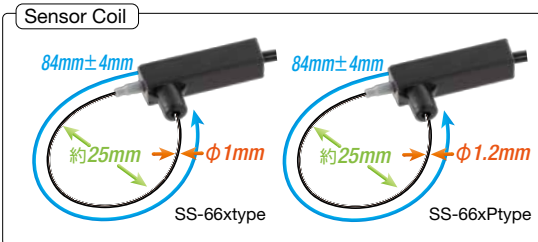


- Equipped with 1.0mm Extreme thin Sensor Coil Wire Diameter (1.2mm for P Type), suitable for direct probing to narrow spaces on Surface Mount Devices.
- Achieved 30MHz Measurement Frequency Bandwidth, suitable for observation of High-Speed Switching Waveforms.
- Wide Range Current Measurement Range of 60A to 12,000A.
- High Current Test can be performed without worrying about Magnetic Saturation.
- Sensor Coil Temperature Range : -40°C to $+125^{\circ}\text{C}$



	SS-660	SS-660P
Frequency bandwidth	30MHz	
Temperature range (Sensor&cable)	$-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$	
Maximum peak voltage	600V	1.2kV
Sensor coil dimensions	84mm \pm 4mm	
Coil diameter	1mm (max.)	1.2mm (max.)

Model	Peak current [A]z	Peak current [A]	Frequency BW	Sensitivity [mV/A]	Peak di/dt [kA/ μ s]	Noise [mV rms]	Absolute max. di/dt	
							Peak [kA/ μ s]	RMS [kA/ μ s]
SS-662	60A	600V	110Hz ~ 30MHz	100	4	5.0	80	3.0
SS-662P		1,200V						
SS-663	120A	600V	65Hz ~ 30MHz	50	8	3.5	80	3.0
SS-663P		1,200V						
SS-664	300A	600V	32Hz ~ 30MHz	20	20	2.5	80	3.0
SS-664P		1,200V						
SS-665	600A	600V	17Hz ~ 30MHz	10	40	2.0	80	3.0
SS-665P		1,200V						
SS-666	1,200A	600V	9Hz ~ 30MHz	5	40	1.8	80	3.0
SS-666P		1,200V						

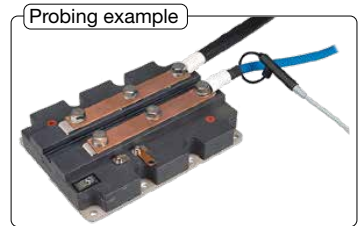


※ Contact us for made-to-order specifications
 ※ SS-66XP Series and SS-662/SS-666: Production by order

SS-620 Series

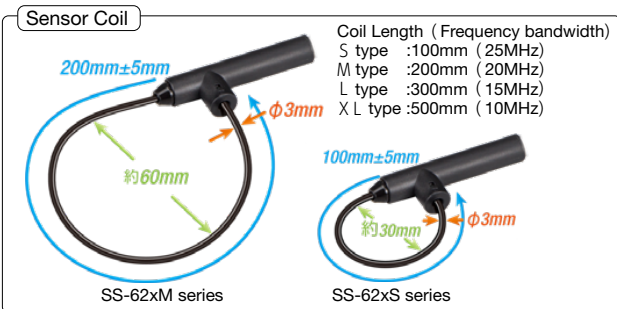


- Equipped with 3.0mm Thin Sensor Coil Wire Diameter, and Max. 5kV peak withstanding Voltage.
- Wide Range Current Measurement from 60A to 30,000A.
- High Current Test can be performed without worrying about Magnetic Saturation.
- Four(4) Types of Coil Length (100 to 500mm) are selectable.



	SS-620XL Series	SS-620L Series	SS-620M Series	SS-620S Series
Frequency bandwidth	10MHz	15MHz	20MHz	25MHz
Temperature range (Sensor&cable)	$-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$			
Maximum peak voltage	5kV			
Sensor coil dimensions	Approx. 500mm	Approx. 300mm	200mm \pm 5mm	100mm \pm 5mm
Coil diameter	3mm (max.)			

Model	Size	Peak current [A]	Frequency BW	Sensitivity [mV/A]	Peak di/dt [kA/ μ s]	Noise [mV rms]	Absolute max. di/dt	
							Peak [kA/ μ s]	RMS [kA/ μ s]
SS-622	M	60	25Hz ~ 20MHz	200	TBD	5.0	80	3.0
	S		~ 25MHz	100	4			
SS-623	M	120	10Hz ~ 20MHz	50	6	5.0	80	3.0
	S		~ 25MHz		8			
SS-624	M	300	4Hz ~ 20MHz	20	16	5.0	80	3.0
	S		~ 25MHz		20			
SS-625	M	600	2Hz ~ 20MHz	10	32	5.0	80	3.0
	S		~ 25MHz		40			
SS-626	M	1,200	1Hz ~ 20MHz	5	60	3.5	80	3.0
	S		~ 25MHz		80			
SS-627	M	3,000	0.8Hz ~ 20MHz	2	80	2.0	80	3.0
	S		~ 25MHz		2			
SS-628	M	6,000	0.6Hz ~ 20MHz	1	80	1.4	80	3.0
	S		~ 25MHz		1			
SS-629	M	12,000	0.4Hz ~ 20MHz	0.5	80	1.2	80	3.0
	S		~ 25MHz		0.5			
SS-630	M	30,000	0.2Hz ~ 20MHz	0.2	80	1.1	80	3.0
	S		~ 25MHz		0.2			

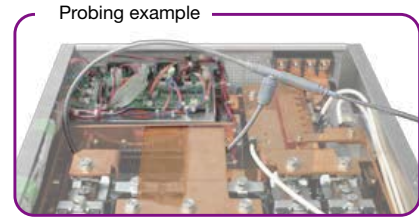
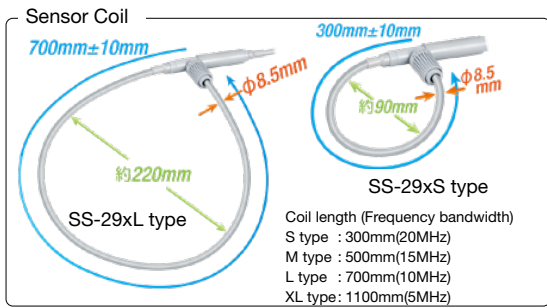


※ Contact us for made-to-order specifications
 ※ Coil length L type and XL type : Custom-made products
 ※ SS-622 · SS-630 Series : Production by order

SS-290 Series

	SS-290L Series	SS-290S Series
Model	10MHz	20MHz
Temperature range (Sensor&cable)	-40°C ~ +125°C	
Maximum peak voltage	10kV	
Sensor coil dimensions	700mm ±10mm	300mm ±10mm
Coil diameter	8.5mm (max.)	

Model	Size	Peak current [A]	Frequency BW	Sensitivity [mV/A]	Peak di/dt [kA/μs]	Noise [mV rms]	Absolute max. di/dt	
							Peak [kA/μs]	RMS [kA/μs]
SS-293	L	1,200	1Hz ~ 10MHz	5	32	3.5	80	3
	S							
SS-294	L	3,000	0.8Hz ~ 10MHz	2	80	2	80	3
	S							
SS-295	L	6,000	0.6Hz ~ 10MHz	1	80	1.4	80	3
	S							
SS-296	L	12,000	0.4Hz ~ 10MHz	0.5	80	1.2	80	3
	S							
SS-297	L	30,000	0.2Hz ~ 10MHz	0.2	80	1	80	3
	S							
SS-298	L	60,000	0.1Hz ~ 10MHz	0.1	80	1	80	3
	S							
SS-299	L	120,000	0.1Hz ~ 10MHz	0.05	80	1	80	3
	S							



- ※ Contact us for made-to-order specifications
- ※ Coil length XLtype : Custom-made products
- ※ SS-297 / SS-298 / SS-299 Series : Production by order

Rogowski current probe common specifications

Model	SS-680 Series	SS-660 Series	SS-660P Series	SS-280A-H Series	SS-280A Series	SS-620 Series	SS-290 Series		
Sensor Coil									
Basic	Sensitivity accuracy	2% (10°C ~ +70°C)	±2% (-10°C ~ +70°C) + additional ±250ppm/°C for -10°C or lower and +70°C or higher				±2% (-10°C ~ +80°C) + additional ±300ppm/°C for -10°C or lower and +80°C or higher		
	Output	Connector type	BNC						
		Voltage range	±1.5V or ±1.2V with 50Ω termination	±6V (Load at ≥ 100kΩ) ※ ±2V at 50Ω termination, Sensitivity can be half.				±6V (load at ≥ 100kΩ)	
	Linearity	±0.05% (for full scale)							
ZERO adj. range	±3mV or more	±300mV or more							
Sensor coil	Coil length/ Outer dimensions	OD : 24mm ID : 14mm Thickness : 5.8mm	Approx. 84mm±4mm		Approx. 84mm ±4mm	Approx. 84mm ±4mm (※60mm also available, contact us for quote)	SS-62xS: 100mm±5mm SS-62xM: 200mm±5mm	SS-29xS: 300mm±10mm SS-29xL: 700mm±10mm	
	Sensor coil wire diameter	-	1.0mm, max.	1.2mm, max.	1.7mm, max.		3mm, max.	8.5mm, max.	
	Max. voltage	1.2kVpeak	600Vpeak		1.2kVpeak		5kVpeak	10kVpeak	
	Sensor coil cable length	1.5m ±50mm						3.0m ±100mm	
	Temperature range (Sensor & cable)	-10°C ~ 70°C	-10°C ~ 70°C		-40°C ~ 150°C	-40°C ~ 125°C			
Amplifier mainframe	Dimensions	Approx. 80(W)×165(D)×35(H) mm (excluding externals)							
	Weight	Approx. 0.37kg					Approx. 0.4kg	SS-29xS : Approx. 0.48kg SS-29xL : Approx. 0.50kg	
	Power supply	AA type *4pcs. (approx. 18hours with Alkaline batteries), AC adaptor is also available(optional)						AA type *4pcs. (approx. 30hours with Alkaline batteries)	
	Accessories	BNC-BNC coaxial cable(50cm*1pc.), Instruction manual(1), Adjustment driver(1), Hardcase(1), Alkaline batteries*4pcs.							
Environmental specification	Temp. range (operation)	0°C ~ +40°C, 80%RH or less							
	Temp. range (storage)	-10°C ~ +60°C, 80%RH or less							
	Operational altitude	≤2,000m at ≤25 °C							

※The products shown in this catalogue are current models at the date of publication. Design and specification are subject to change without notice for improvement.
 ※All enterprises including National Instruments and Microsoft, etc. and product names mentioned are trademarks or registered trademarks of the respective owners.
 ※Some of the products are Regulated Products subject to the ForeignExchange and Foreign Trade Control Law of Japan. Export should not be allowed without appropriate governmental authorization. Please ask our sales office whether the product concerned is a Regulated Product(s).