2010

Product Catalog

ROHM SEMICONDUCTOR

Modules (Sub Systems)

Thermal Printheads

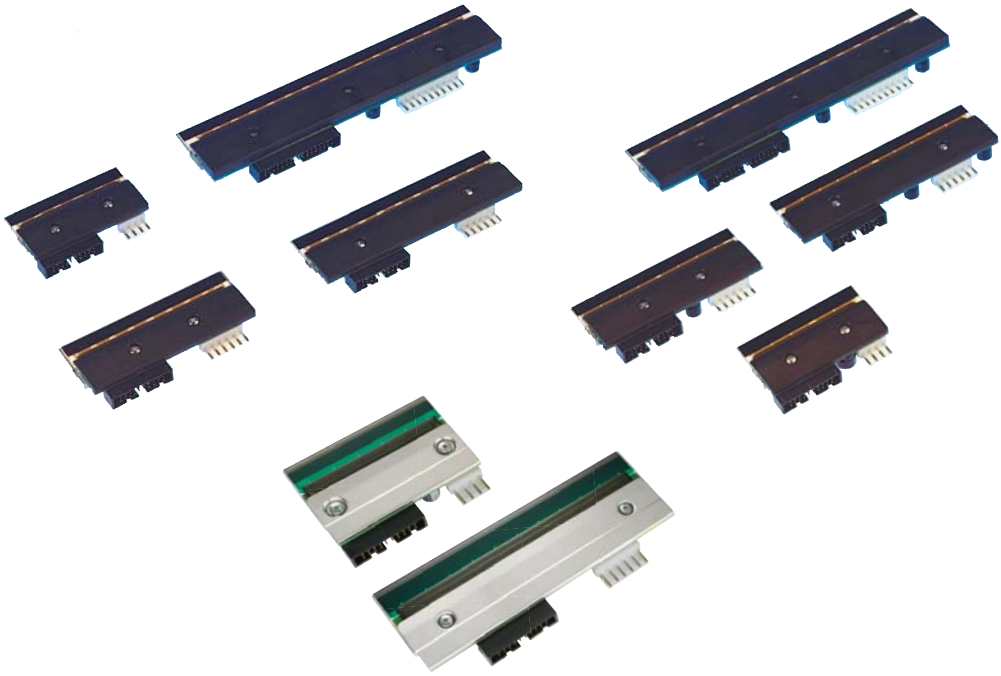
for Bar Code Label Printers

ROHM Co.,Ltd.

Thermal Printheads

for Bar Code Label Printers

ROHM' s new thin-film step-free structure ensures durable, high quality printing at speeds of 300mm/s or higher.
Thick film heads are offered that utilize an ultra-compact resistive element structure for high quality printing at 250mm/s. In addition, thermal history IC compatibility makes them ideal for high performance barcode label printers.



Near Edge Straight path printing feasible due to near edge structure.

History Control ROHM's future control functions and history control driver chip deliver faster, superior printing.

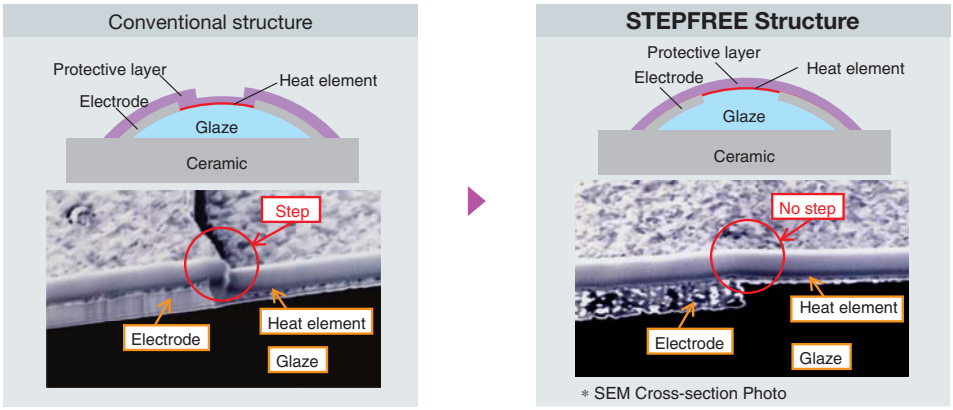
High Resolution ROHM's product family includes high-resolution solutions for demanding printing requirements.

W coat Longer abrasion life than X-coat. With conductive layer.

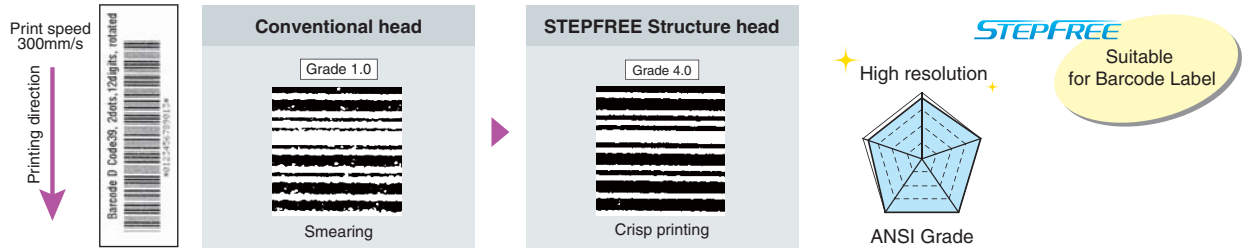
Multi Input Supports the connection of multiple input devices for retail, POS, and other applications.

New Thin-film ‘Step-free’ Structure

ROHM’ s new thin-film step-free structure succeeds in dramatically improving reliability and printing quality at fast print speeds by completely eliminating step between the electrode and resistive elements present in conventional thermal printheads.

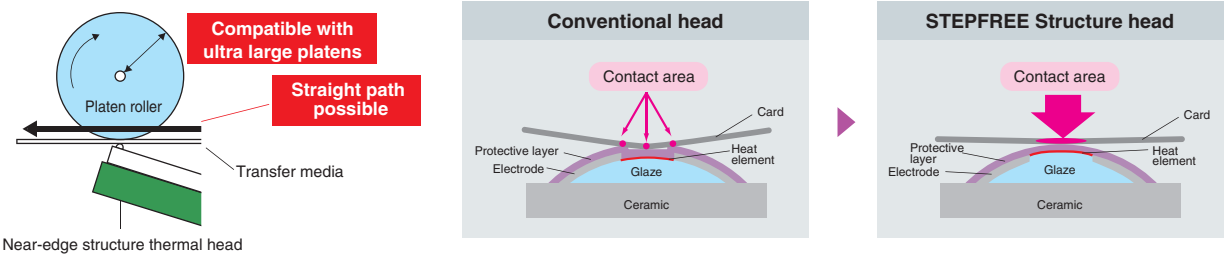


High print quality improves bar code recognition



Step-free configuration is ideal for near-edge structures

The unique step-free structure ensures stable, clean contact between the head and media, ensuring high quality, efficient printing with both standard straight-line and near-edge printing applications (e.g. thick media such as cards).



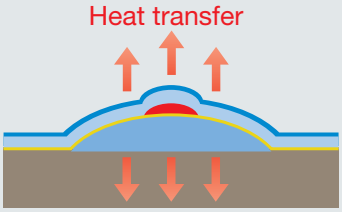
Thick-film thermal printheads optimized for high-speed printing

ROHM offers thermal printheads specifically designed for high-speed printing applications. The thick-film structure provides both excellent productivity and superior energy savings, while a special glaze configuration delivers the high thermal responsiveness and thermal conductivity required for high-speed printing.

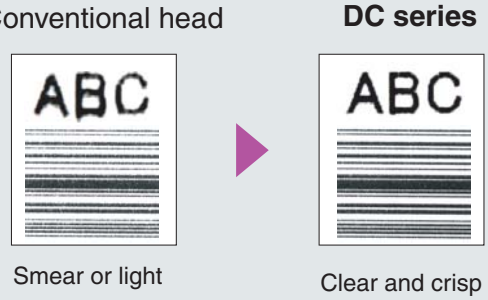
High quality 250mm/s printing

Excellent thermal responsiveness and thermal conductivity utilizing a revolutionary resistive element structure that concentrates heat, disproving the notion that thick-film printheads are unsuitable for high-speed printing.

Resistive elements smaller than conventional printheads

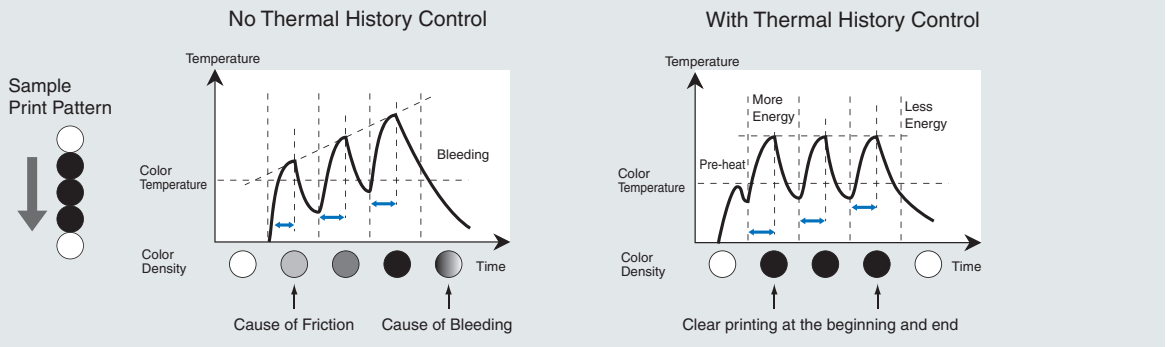


Excellent thermal responsiveness eliminates bleeding or smearing resulting from residual heat after printing. In addition, better contact eliminates thermal loss, resulting in clear text. (Printing speed: 250mm/s)



Built-in thermal history control function

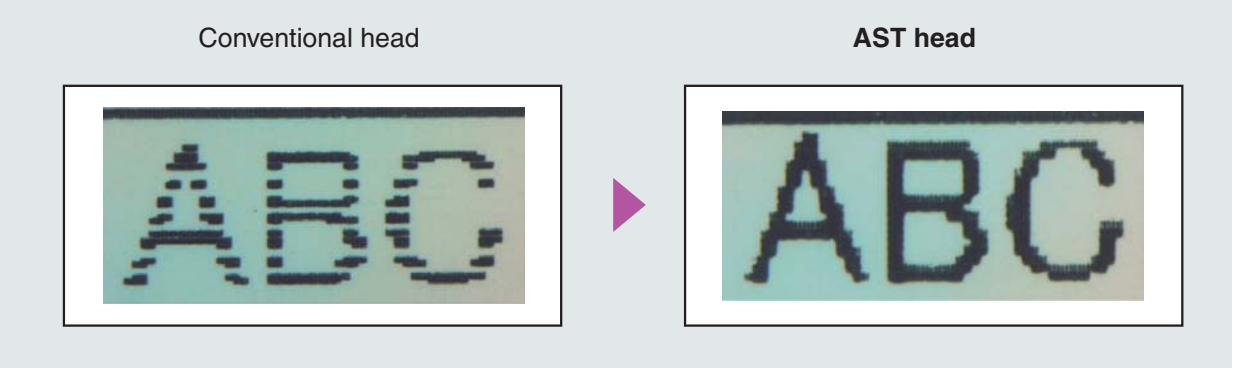
The history control function required for high-speed printing is integrated into the ROHM' s thermal printheads, simplifying the design. ROHM utilizes a specially designed driver IC, making it possible to perform optimal history control without the need for discrete external parts.



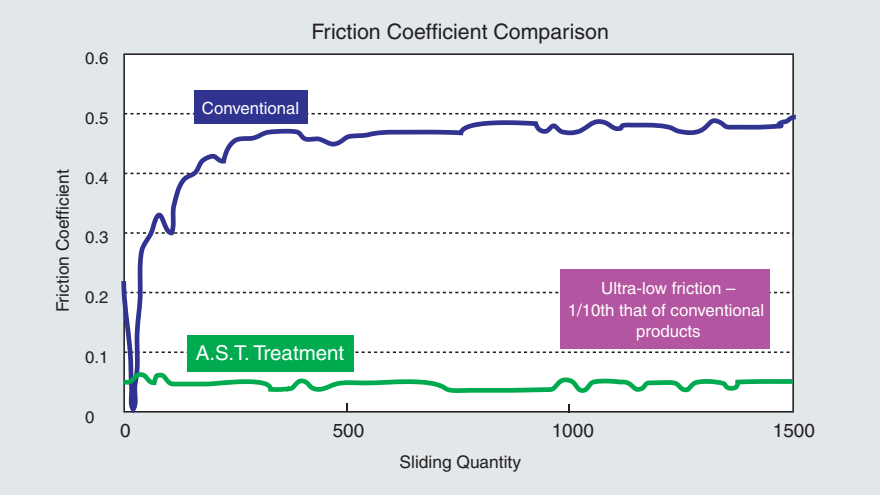
During high-speed printing more energy is supplied at the start of the print cycle to control heating/cooling and less energy during continuous printing to prevent bleeding, resulting in significantly improved print quality with less energy consumption.

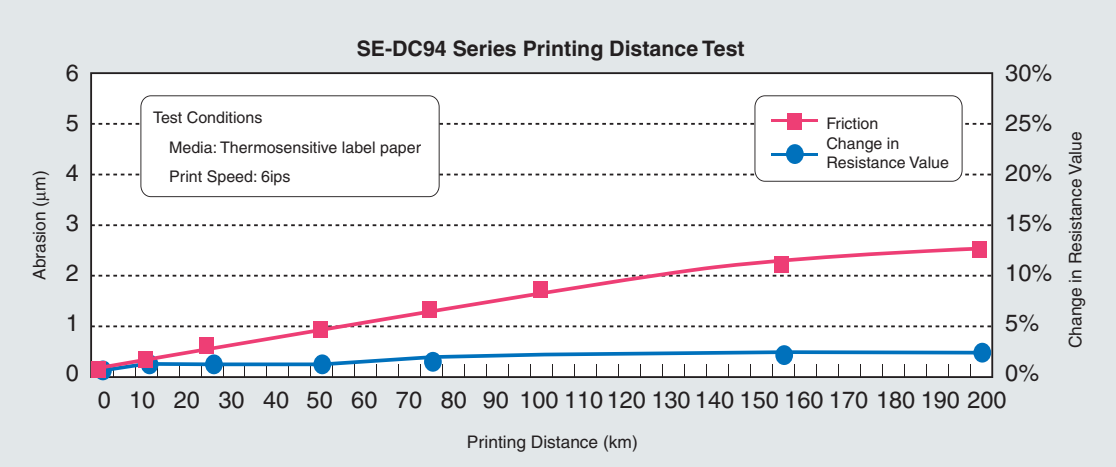
Anti-Sticking Treatment (AST)

Thermal paper may adhere to the resistive elements due to rapid heating/cooling. ROHM thermal printheads with AST prevents this for superior print quality and reliability.



AST dramatically reduces the coefficient of friction of the protective coating, resulting in fast print capability with less adhesion.





Product specifications

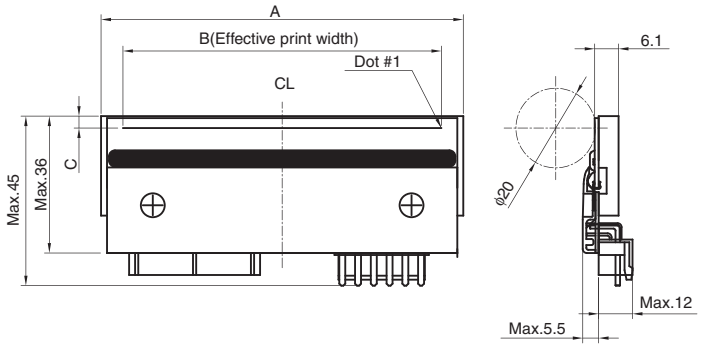
DC10 / 92 series

Part No.	Resolution (dpi)	Print Width (mm)	Number of Dot (dots)	Resistance (Ω)	Resistance Tolerance	Platen Diameter Max.(mm)	Print Speed (mm/s)	Logic Voltage (V)	Supply Voltage (V)	Connector Type	Heat Sink	Abrasion Life (km)	Pulse Life (pulses)
KD2002-DC10A	203	56	448	650	±3%	20	100 to 300	3.13 to 5.25	24	Cable	Yes	150	100 million
KD2003-DC10A	203	80	640	650	±3%	20	100 to 300	3.13 to 5.25	24	Cable	Yes	150	100 million
KD2004-DC10A	203	104	832	650	±3%	20	100 to 300	3.13 to 5.25	24	Cable	Yes	150	100 million
KD2006-DC10A	203	168	1344	650	±3%	20	100 to 300	3.13 to 5.25	24	Cable	Yes	150	100 million
KD3002-DC92A	300	54.2	640	1250	±3%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
KD3003-DC92A	300	81.3	960	1250	±3%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
KD3004-DC92A	300	108.4	1280	1250	±3%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
KD3006-DC92A	300	162.6	1920	1250	±3%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
KD3004-DC10A	300	108.4	1280	1000	±3%	20	100 to 250	3.13 to 5.25	24	Cable	Yes	150	100 million

DC72 series

Part No.	Resolution (dpi)	Print Width (mm)	Number of Dot (dots)	Resistance (Ω)	Resistance Tolerance	Platen Diameter Max.(mm)	Print Speed (mm/s)	Logic Voltage (V)	Supply Voltage (V)	Connector Type	Heat Sink	Abrasion Life (km)	Pulse Life (pulses)
KD2002-DC72A	203	56	448	550	±3%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
KD2003-DC72A	203	80	640	550	±3%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
KD2004-DC72A	203	104	832	550	±3%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
KD2006-DC72A	203	168	1344	550	±3%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
KD3002-DC72A	300	54.2	640	1250	±3%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
KD3003-DC72A	300	81.3	960	1250	±3%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
KD3004-DC72A	300	108.4	1280	1250	±3%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
KD3006-DC72A	300	162.6	1920	1250	±3%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million

Dimensions (Unit : mm)



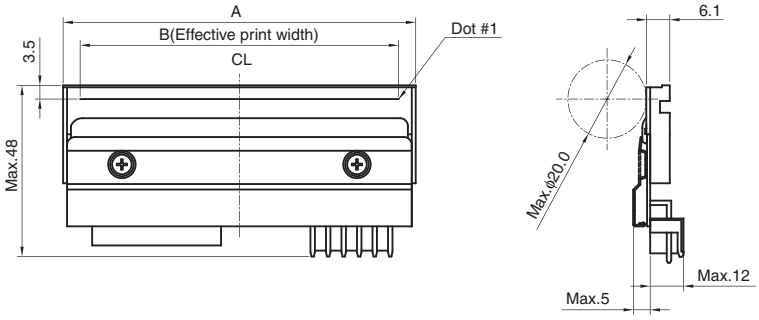
Part No.		A (mm)	B (mm)	C (mm)
KD2002-DC10A	**KD2002-DC72A**	65	56	3.0
KD2003-DC10A	**KD2003-DC72A**	91	80	
KD2004-DC10A	**KD2004-DC72A**	118	104	
KD2006-DC10A	**KD2006-DC72A**	182	168	3.5
KD3002-DC92A	**KD3002-DC72A**	65	54.2	3.0
KD3003-DC92A	**KD3003-DC72A**	91	81.3	
KD3004-DC92A	**KD3004-DC72A**	118	108.4	
KD3006-DC92A	**KD3006-DC72A**	182	162.6	3.5

SE series

Part No.	Resolution (dpi)	Print Width (mm)	Number of Dot (dots)	Resistance (Ω)	Resistance Tolerance	Platen Diameter Max.(mm)	Print Speed (mm/s)	Logic Voltage (V)	Supply Voltage (V)	Connector Type	Heat Sink	Abrasion Life (km)	Pulse Life (pulses)
SE2002-DC70A	203	56	448	550	±15%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
SE2004-DC70A	203	112	896	550	±15%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
SE3002-DC70A	300	54.2	640	850	±15%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
SE3004-DC70A	300	108.4	1280	850	±15%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
AST **SE2002-DC90A**	203	56	448	550	±15%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
AST **SE2003-DC90A**	203	80	640	550	±15%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
AST **SE2004-DC90A**	203	112	896	550	±15%	20	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
AST **SE3002-DC90A**	300	54.2	640	850	±15%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
AST **SE3003-DC90A**	300	81.3	960	850	±15%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
AST **SE3004-DC90A**	300	108.4	1280	850	±15%	20	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million

AST AST(Anti Sticking Treatment) products are available and are denoted by the suffix 'DC94A' in the part number.

Dimensions (Unit : mm)

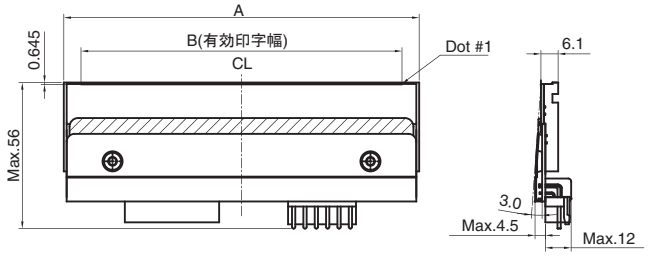


Part No.	A (mm)	B (mm)
SE2002-DC70A	66	56
SE2004-DC70A	124	112
SE3002-DC70A	66	54.2
SE3004-DC70A	124	108.4
SE2002-DC90A	66	56
SE2003-DC90A	90	80
SE2004-DC90A	124	112
SE3002-DC90A	66	54.2
SE3003-DC90A	90	81.3
SE3004-DC90A	124	108.4

SH series

Part No.	Resolution (dpi)	Print Width (mm)	Number of Dot (dots)	Resistance (Ω)	Resistance Tolerance	Platen Diameter Max.(mm)	Print Speed (mm/s)	Logic Voltage (V)	Supply Voltage (V)	Connector Type	Heat Sink	Abrasion Life (km)	Pulse Life (pulses)
SH2002-DC70A	203	56	448	550	±15%	50	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
SH2004-DC70A	203	112	896	550	±15%	50	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
SH3002-DC70A	300	54.2	640	850	±15%	50	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
SH3004-DC70A	300	108.4	1280	850	±15%	50	100 to 250	4.75 to 5.25	24	Cable	Yes	150	100 million
SH2002-DC90A	203	56	448	550	±15%	50	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
SH2004-DC90A	203	112	896	550	±15%	50	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
SH3002-DC80A	300	54.2	640	550	±15%	50	600	4.75 to 5.25	24	Cable	Yes	150	100 million
SH3002-DC90A	300	54.2	850	850	±15%	50	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million
SH3004-DC90A	300	108.4	850	850	±15%	50	100 to 300	4.75 to 5.25	24	Cable	Yes	150	100 million

Dimensions (Unit : mm)



Part No.	A (mm)	B (mm)
SH2002-DC70A	66	56
SH2004-DC70A	124	112
SH3002-DC70A	66	54.2
SH3004-DC70A	124	108.4
SH2002-DC90A	66	56
SH2004-DC90A	124	112
SH3002-DC80A	66	54.2
SH3002-DC90A	66	54.2
SH3004-DC90A	124	108.4

ROHM Sales Offices

Contact us for further information about the products.

San Diego	+1-858-625-3630	**United Kingdom**	+44-1-908-272400	**Shanghai**	+86-21-6279-2727	**Hong Kong**	+852-2-740-6262
Atlanta	+1-770-754-5972	**Espoo**	+358-9725-54491	**Hangzhou**	+86-571-87658072	**Taipei**	+886-2-2500-6956
Boston	+1-978-371-0382	**Salo**	+358-2-7332234	**Nanjing**	+86-25-8689-0015	**Kaohsiung**	+886-7-237-0881
Chicago	+1-847-368-1006	**Oulu**	+358-8-5372930	**Ningbo**	+86-574-87654201	**Singapore**	+65-6332-2322
Dallas	+1-972-473-3748	**Barcelona**	+34-9375-24320	**Qingdao**	+86-532-8577-9312	**Philippines**	+63-2-807-6872
Denver	+1-303-708-0908	**Hungary**	+36-1-4719338	**Suzhou**	+86-512-6807-1300	**Thailand**	+66-2-254-4890
Detroit	+1-248-348-9920	**Poland**	+48-22-5757213	**Wuxi**	+86-510-82702693	**Kuala Lumpur**	+60-3-7958-8355
Nashville	+1-615-620-6700	**Russia**	+7-495-739-41-74	**Guangzhou**	+86-20-3878-8100	**Penang**	+60-4-2286453
Mexico	+52-33-3123-2001	**Seoul**	+82-2-8182-700	**Huizhou**	+86-752-205-1054	**Kyoto**	+81-75-365-1218
Dusseldorf	+49-2154-9210	**Masan**	+82-55-240-6234	**Dongguan**	+86-769-8393-3320	**Yokohama**	+81-45-476-2290
Munich	+49-8999-216168	**Dalian**	+86-411-8230-8549	**Shenzhen**	+86-755-8307-3008		
Stuttgart	+49-711-7272-370	**Beijing**	+86-10-8525-2483	**Xiamen**	+86-592-238-5705		
France	+33-1-4060-8730	**Tianjin**	+86-22-23029181	**Zhuhai**	+86-756-3232-480		

Catalog No.52P6265E 06.2010 ROHM ©

R1060A

ROHM Co.,Ltd.
21 Saiin Mizosaki-cho, Ukyo-ku,
Kyoto 615-8585 Japan
TEL : +81-75-311-2121 FAX : +81-75-315-0172
www.rohm.com

ROHM SEMICONDUCTOR