








## RESISTORS

Series	Description	Size (inch/mm)	Tolerance	TCR	Power Rating	Range	Feature
<b>Resistor - Thin Film /Thick Film</b>							
<b>BS</b>  	Thin Film Precision Chip Resistor	BS01: 0201inch/0603mm BS02: 0402inch/1005mm BS03: 0603inch/1608mm BS05: 0805inch/2012mm BS06: 1206inch/3216mm BS13: 1210inch/3225mm BS10: 2010inch/5025mm BS12: 2512inch/6432mm	T: ±0.01% A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5% F: ±1%	S: ±5PPM/°C B: ±10PPM/°C N: ±15PPM/°C C: ±25PPM/°C D: ±50PPM/°C	Z: 1/32W (BS01) Y: 1/16W (BS02) Y: 1/16W (BS03) X: 1/10W (BS03) X: 1/10W (BS05) W: 1/8W (BS05) W: 1/8W (BS06) M: 1/6W (BS03) P: 1/5W (BS13) V: 1/4W (BS05) V: 1/4W (BS06) V: 1/4W (BS10) O: 1/3W (BS06) O: 1/3W (BS10) O: 1/3W (BS13) Q: 3/4W (BS12) U: 1/2W (BS12) T: 1W (BS12)	1Ω~3MΩ	* Extremely Low TCR ±5PPM/°C  * Extremely Tight Tol ±0.01%  * Wide Resistance Range 1~3MΩ  * High Power Rating to 1W  * Compact Size 0201 Available
Equivalent to Vishay make RB, KOA make RN, Yaego make RT, Panasonic make ERA, Cynotec make RR & RG, Susumu make RR, Walsin make WF series							
Applications: Medical Equipments, Converters, Testing Equipments, Automatic Equipment Controller, Communications Devises & Products							
<b>QS</b>  <b>UBT</b>  	Anti-Corrosive Thin Film Precision Chip Resistor	QS02: 0402inch/1005mm QS03: 0603inch/1608mm QS05: 0805inch/2012mm QS06: 1206inch/3216mm QS10: 2010inch/5025mm QS12: 2512inch/6432mm	B: ±0.1% C: ±0.25% D: ±0.5%	N: ±15PPM/°C C: ±25PPM/°C D: ±50PPM/°C	Y: 1/16W (QS02) Y: 1/16W (QS03) X: 1/10W (QS03) X: 1/10W (QS05) W: 1/8W (QS05) W: 1/8W (QS06) V: 1/4W (QS06) V: 1/4W (QS10) U: 1/2W (QS12)	10Ω~1.5MΩ	* Very Tight Tol ±0.1% * Extremely Low TCR ±15PPM * Wide Resistance Range * Available Completed Size * Anti-Sulfur is Available
Applications: Automotive, Automotive Industries, Industrial Equipments, Medical Equipments, Automatic Equipment Controller, Communications & Multimedia Devises							
<b>DS</b>  	Thick Film Chip Resistor	DS01: 0201inch/0603mm DS02: 0402inch/1005mm DS03: 0603inch/1608mm DS05: 0805inch/2012mm DS06: 1206inch/3216mm DS10: 1210inch/3225mm DS0A: 2010inch/5025mm DS12: 2512inch/6432mm	B: ±0.1% C: ±0.25% D: ±0.5% F: ±1% J: ±5%	D: ±50PPM/°C E: ±100PPM/°C F: ±200PPM/°C H: ±400PPM/°C	N: 1/20W (DS01) Y: 1/16W (DS02) X: 1/10W (DS02) X: 1/10W (DS03) W: 1/8W (DS03) W: 1/8W (DS05) V: 1/4W (DS06) O: 1/3W (DS06) O: 1/3W (DS10) Q: 3/4W (DS0A) U: 1/2W (DS10) T: 1W (DS0A) T: 1W (DS12) S: 2W (DS12)	0Ω~100MΩ	* Small Size and Light Weight * Very Tight Tol ±0.1% * Low TCR ±50 PPM * Fast Delivery * High Reliable Multilayer Electrode Construction
Equivalent to Vishay make D/CR/CRCW, KOA make RK731, Panasonic make ERJ, Rohm make MCR, TA-I make RM, IRC make WCR Series							
Applications: Automotive Industries, Medical Equipments, Communications Equipments, Consumer Products, Instruments, Computers							
<b>INS</b>  	High Ohmic Chip Resistor	INS05: 0805inch/2012mm INS06: 1206inch/3216mm	J: ±5%	I: ±500PPM/°C R: ±1000PPM/°C	W: 1/8W (INS05) V: 1/4W (INS06)	110MΩ~1GΩ	* High Resistance to 1G * High Reliable Multilayer Electrode Construction
Equivalent to Vishay make RCHR, Kamaya make RHC, IRC make HR series							
Applications: Voltage Dividers and Hybrids, X-Ray Equipments, Low Signal Detection or Amplification Circuits, High Input Impedance Quartz Amplifiers, Testing Devices							

 <b>QXS</b>	Pulse Withstanding Chip Resistor	QXS03: 0603inch/1608mm QXS05: 0805inch/2012mm QXS06: 1206inch/3216mm QXS13: 1210inch/3225mm QXS10: 2010inch/5025mm QXS12: 2512inch/6432mm	D: ±0.5% F: ±1% J: ±5%	E:±100PPM/°C F:±200PPM/°C	X:1/10W(QXS03) W:1/8W(QXS03) W:1/8W(QXS05) P:1/5W(QXS03) V:1/4W(QXS05) O: 1/3W(QXS06) U:1/2W(QXS06) U:1/2W(QXS13) Q: 3/4W(QXS10) T: 1W(QXS10) A:1.5W(QXS12)	1Ω~20MΩ	* Tol from ±0.5%~±5% * High Power Rating * Excellent Pulse withstanding Performance * Standard Package Size 0603~2512
Equivalent to Vishay make CRCW, Yageo make SRC, KOA make SG73, Rohm make ESR, NIC make NRC, Panasonic make ERJP, IRC make PWC series							
Applications: Metering (Testing/Measurements) Equipments, Medical Devices, Industrial Controls, Diagnostic Equipments, LCD Video Monitors, Plasma TVs							
 <b>TXS</b>	Surge Withstanding Chip Resistor	TXS03: 0603inch/1608mm TXS05: 0805inch/2012mm TXS06: 1206inch/3216mm TXS13: 1210inch/3225mm TXS10: 2010inch/5025mm TXS12: 2512inch/6432mm	J: ±5% K: ±10% M: ±20%	E:±100PPM/°C F:±200PPM/°C	W:1/8W(TXS03) V:1/4W(TXS05) O:1/3W(TXS06) U:1/2W(TXS13) Q:3/4W(TXS10) A:1.5W(TXS12)	1Ω~20MΩ	* High Power Rating * Excellent Surge withstanding & Pulse withstanding Performance * Improved Working Voltage Rating * Standard Package Size 0603~2512
Equivalent to Vishay make D/CRCW, KOA make SG73, Panasonic make ERJT, Yageo make SR, Walsin make WF, Kamaya make RPC series							
Applications: Power Supply, Chargers, Inverters, Metering (Testing/Measurements) Equipments, Medical Devices, Automotive, LCD Video Monitors							
 <b>IWS</b>	High Voltage Thick Film Chip Resistor	IWS02: 0402inch/1005mm IWS03: 0603inch/1608mm IWS05: 0805inch/2012mm IWS06: 1206inch/3216mm IWS0A: 2010inch/5025mm IWS12: 2512inch/6432mm	F: ±1% J: ±5%	E:±100PPM/°C F:±200PPM/°C H:±400PPM/°C	Y:1/16W(IWS02) X:1/10W(IWS03) W:1/8W(IWS05) V:1/4W(IWS06) U:1/2W(IWS0A) T: 1W(IWS12)	10Ω~100MΩ	* Higher Component and Equipment Reliability * High Voltage to 4000V * Tight Tol ±1.0% * Reduced Size of Final Equipment
Equivalent to Vishay make CRM, KOA make HV73, Rohm Make KTR , Kamaya make RVC, Walsin make RV, IRC make HVC & WF, TA-I make RH series							
Applications: Inverters, Converters, Automotive Industries, High Pulse Equipments, Outdoor Equipments							
 <b>IWS</b>	High Voltage Thick Film Chip Resistor	IWS02: 0402inch/1005mm IWS03: 0603inch/1608mm IWS05: 0805inch/2012mm IWS06: 1206inch/3216mm IWS0A: 2010inch/5025mm IWS12: 2512inch/6432mm	F: ±1% J: ±5%	E:±100PPM/°C F:±200PPM/°C H:±400PPM/°C	Y:1/16W(IWS02) X:1/10W(IWS03) W:1/8W(IWS05) V:1/4W(IWS06) U:1/2W(IWS0A) T: 1W(IWS12)	10Ω~100MΩ	* Higher Component and Equipment Reliability * High Voltage to 4000V * Tight Tol ±1.0% * Reduced Size of Final Equipment
Equivalent to Vishay make CRM, KOA make HV73, Rohm Make KTR , Kamaya make RVC, Walsin make RV, IRC make HVC & WF, TA-I make RH series							
Applications: Inverters, Converters, Automotive Industries, High Pulse Equipments, Outdoor Equipments							
 <b>BT</b>	Anti-Sulfurated Thick Film Chip Resistor	BT01: 0201inch/0603mm BT02: 0402inch/1005mm BT03: 0603inch/1608mm BT05: 0805inch/2012mm BT06: 1206inch/3216mm BT10: 1210inch/3225mm BT0A: 2010inch/5025mm BT12: 2512inch/6432mm	D: ±0.5% F: ±1% J: ±5%	E:±100PPM/°C F:±200PPM/°C	N: 1/20W(BT01) Y: 1/16W(BT02) X: 1/10W(BT03) W: 1/8W (BT05) V: 1/4W (BT06) O: 1/3W (BT10) Q: 3/4W(BT0A) T: 1W (BT12)	0Ω~10MΩ	* Tight Tol ±0.5% * Special Construction to Prevent Sulfuration in a Sulfur Containing Environment * High Level Anti-Sulfur
Equivalent to Vishay make RCA, Rohm make TRR, KOA make RK73, Panasonic make ERJ series							
Applications: Automotive, Automotive Industries, Industrial Equipments, Automatic Equipment Controller, Medical Equipments, High End Multimedia Electronics							
 <b>SU</b>	Trimmable Thick Film Chip Resistor	SU02: 0402inch/1005mm SU03: 0603inch/1608mm SU05: 0805inch/2012mm SU06: 1206inch/3216mm SU10: 1210inch/3225mm SU0A: 2010inch/5025mm SU12: 2512inch/6432mm	N: 0~-10% P: 0~-20% Q: 0~-30%	E:±100PPM/°C F:±200PPM/°C	Y: 1/16W(SU02) X: 1/10W(SU03) W:1/8W (SU05) V: 1/4W (SU06) O: 1/3W (SU10) Q: 3/4W(SU0A) T: 1W (SU12)	1Ω~10MΩ	* Small Size and Light Weight * Suitable for Laser Fine Tune * High reliability * Compatible with all Soldering Process
Equivalent to Vishay make D/CRCW, Yageo make TR, Kamaya make FCR, Walsin make WF, TA-I make RT series							
Applications: Sensor Control Circuits, Portable Measuring Equipments, Photo Sensor, Tuners, Camcorder, Portable Audio							
 <b>XC</b>	Wire Bondable Chip Resistor	XC01: 0201inch/0603mm XC02: 0402inch/1005mm XC03: 0603inch/1608mm	B: ±0.1% D: ±0.5% F: ±1% J:±5% K:±10%	C:±25PPM/°C D:±50PPM/°C E:±100PPM/°C	Z: 1/32W(XC01) Y: 1/16W(XC02) Y: 1/16W(XC03)	10Ω~332KΩ	* Very Tight Tol ±0.1% * Extremely Low TCR * Customized Bonding Pattern Design.
Applications: Hybrid Chip on Board Circuits, LED Constant Current Application, Medial Equipments, Testing/Measurement Equipments, Integrated MMIC, MCM Package							
•Design and specifications are each subject to change without notice.							

Please kindly send the requirements to Y. OMORI (e-mail: [omori@wintec-corp.com](mailto:omori@wintec-corp.com))

2-6-3, NISHI-SHINAGAWA, SHINAGAWA-KU, TOKYO, 141-0033, JAPAN  
 TEL: +81-3-3490-6372 FAX: +81-3-3490-6389 [www.wintec-corp.com](http://www.wintec-corp.com)