

# Panasonic

## AEC-Q200 COMPLIANT PASSIVE COMPONENTS SELECTION GUIDE



CAPACITORS

RESISTORS

INDUCTORS

CIRCUIT PROTECTION

**ALUMINUM ELECTROLYTIC/HYBRID CAPACITORS**

EEE - FCxxxxxx	SMT, FC Series, Low Impedance, Pb-Free
EEE-FKxxxxxAM	SMT, FK Series, 260C Reflow, 12.5 ~ 18 mm dia.
EEE - FKxxxxxAR / AP	SMT, FK Series, 260C Reflow, 4 ~ 10mm dia.
EEE - FKxxxxxGx	SMT, FK Series, Low Impedance, 5000 Hrs
EEE - FKxxxxxR / P	SMT, FK Series, Low Impedance, Pb-Free
EEE - FKXXXXXSP	SMT, FK Series, Low Impedance, 5000 Hrs
EEE - FPXXXXXAX	SMT, FP Series, Low Impedance, 260C Reflow
EEE - HA	SMT, FT Series, Low Impedance, 260C Reflo
EEE - HAXXXXXXAX	SMT, HA Series, 1000hrs, 260C Reflow
EEE - HB	SMT, HB Series, Long Life, 2000hrs, Pb-Free
EEE - HBXXXXXAX	SMT, HB Series, 2000hrs, 260C Reflow
EEE - HC	SMT, HC Series, Long Life, 3000hrs, Pb-Free
EEE - HD	SMT, HD Series, Long Life 105C 5Khr, Pb-Free
EEE - TG	SMT, TG series 125C, Pb-Free
EEE - TGXXXXXP/R	SMT TG series 125C (Dia. <12mm) RoHS compliant
EEE - TK	SMT, TK series 125C, Pb-Free
EEE - TP	SMT, TP series 125C, Pb-Free
EEE - FCXXXXXAX	SMT, FC Series, Low Impedance, 260C Reflow
EEH - ZAXXXXXXX	SMT ZA Series, 105C
EEH - ZCXXXXXX	SMT ZC Series, 125C
EEU - FC	Radial, FC Series (16mm & 18mm Dia.)
EEU - FC	Radial, FC Series (Other case sizes)
EEU - TA	Radial TA series, 125C
EEU - TP	Radial TP series, 135C
EEV - FKXXX (M) (Q)	SMT, FK Series, Low Impedance, (Dia. > 12mm) RoHS compliant
EEV - TGXXX (M)(Q)	SMT TG series 125C (Dia. >12mm) RoHS compliant

**POSCAP TANTALUM CAPACITORS**

TA	POSCAP, Polymer Tantalum, chip, 105C,
TV	POSCAP, Polymer Tantalum, chip, 7.3x4.3mm, 125C,

**THIN FILM CHIP RESISTORS, HIGH RELIABILITY TYPE**

ERA - 14XB/14XD	1210, 1/4W, 0.1%
ERA - 1A	0201, 1/20W
ERA - 2AXB / 2AXD / 2AK	0402, 1/16W, 0.1% / 0.5%
ERA - 3AXB / 3AXD	0603, 1/10W, 0.1% / 0.5% / 0.05%
ERA - 3YXB / 3EXB	0603, 1/16W, 0.1%, 0.5%, E-24 / E-96
ERA - 6AXB / 6AXD	0805, 1/8W, 0.1% / 0.5% / 0.05%
ERA - 6YxB / 6ExB	0805, 1/10W, 0.1%, 0.5%, E-24 / E-96
ERA - 6YxD	0805, 1/10W, 0.5%
ERA - 8A	1206, 1/4W, 0.1% / 0.5% / 0.05%

**METAL FILM THERMOSENSITIVE CHIP RESISTORS**

ERA - S	Thermal Sensitive, 0805
ERA - V	Thermal Sensitive, 0603
ERA - W	Thermal Sensitive, 0402

**METAL (OXIDE) FILM RESISTORS**

ERG - 1 (others)	Axial Lead, 1W, 2%, 5%
ERG - 12	1/2W, 2%, 5%
ERG - 1FJSxxxE	T-Shape Radial Lead, 1W, 2%, 5%
ERG - 1HJ/GxxxH	1W/2W, 5%, 2%
ERG - 1SJxxx (E)	Hairpin Style Lead, 1W, 2%, 5%
ERG - 1SJxxxV	Axial Lead, 1W, 2%, 5%
ERG - 2 (others)	2W, 2%, 5%
ERG - 2FJSxxx (E)	T-Shape Lead, 2W, 2%, 5%
ERG - 2HJ/GxxxH	1W/2W, 5%, 2%
ERG - 2SJxxxA / E	Hairpin Style Lead, 2W, 2%, 5%
ERG - 2SJxxxV	Axial Lead, 2W, 2%, 5%
ERG - 3 (others)	3W, 2%, 5%
ERG - 3 (others)	T-Shape Lead, 3W, 2%, 5%
ERG - 3SJxxxV	Axial Lead, 3W, 2%, 5%
ERG - 5	5W, 2%, 5%
ERG - xxFxxx xxx	Leaded
ERG - xxSxGx xxx _ ("Nil" or "V" suffixes Std )	Leaded
ERG/X/Q - 1H/2H J/GxxxH	1W/2W, 5%, 2%
ERX - 1F	1W, 2%, 5%
ERX - 1H	SMT, Power Device, 1W
ERX - 1SGxxxV	Axial Lead
ERX - 1SJxxxA / E	Hairpin Style Lead, 1W, 2%, 5%
ERX - 1SJxxxV	Axial Lead, 1W, 2%, 5%
ERX - 1SZGxxxV	Axial Lead
ERX - 2 (others)	2W, 2%, 5%
ERX - 2FJSxxxE	T-Shape Radial Lead, 2W, 2%, 5%
ERX - 2H	SMT, Power Device, 2W
ERX - 2SJxxxA / -2SG	Axial Lead, 2W, 5%, 2%
ERX - 2SJxxxE / V	Hairpin Style Lead, 2W, 2%, 5%
ERX - 3 (others)	3W, 2%, 5%
ERX - 3FJSxxxE	T-Shape Radial Lead, 3W, 2%, 5%
ERX - 3SJxxx (V)	Axial, 3W, 2%, 5%
ERX - 3SJxxxA	Axial, 3W, 2%, 5%
ERX - 5	5W, 2%, 5%

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## THICK FILM CHIP RESISTORS

ERJ - 1GNF	0201 1%, Halogen free type
ERJ - 1GNJ	0201 5%, Halogen free type
ERJ - 12NF	1812, 1/2W 1%
ERJ - 12R	1812, Low ohmic value, 1%, 5%
ERJ - 12SF	Thick Film Chip Resistor, 2010, 1/2W 1%
ERJ - 12Y0	1812, 1/2W JUMPER
ERJ - 12YJ	1812, 1/2W 5%
ERJ - 12YK	1812, 1/2W 10%
ERJ - 12ZQJXXU	2010, 1/2W LOW OHMIC VALUE 1%, 5%
ERJ - 12ZSXXU	2010, 1/2W LOW OHMIC VALUE 1%, 5%
ERJ - 12ZYJ / 0	2010, 1/2W 5% / JUMPER
ERJ - 14BX	0402, LOW OHMIC VALUE, 1% 2% 5%
ERJ - 14NF	1210, 1/4W 1%, PRECISION
ERJ - 14R	1210, LOW OHMIC VALUE, 1%, 5%
ERJ - 14YJ / 0	1210, 1/4W 5%
ERJ - 14YK	1210, 1/4W 10%
ERJ - 1GEF	0201, 1%
ERJ - 1TNF	2512, 1W 1%
ERJ - 1TR	2512, LOW OHMIC VALUE, 1%, 5%
ERJ - 1TYJ / 1TYF / 0	2512, 1W 5% / 1% / JUMPER
ERJ - 2BW	0402, ULTRA LOW OHMIC VALUE, 2% 5%
ERJ - 2BX	0402, LOW OHMIC VALUE, 1% 2% 5%
ERJ - 2GEF	0402, 1/16W 1%
ERJ - 2RKF	0402, 1/16W 1%
ERJ - 2RXD	0402, 1/16W 0.5%
ERJ - 3BW	0603, ULTRA LOW OHMIC VALUE, 1% 2% 5%
ERJ - 3BX	0603, LOW OHMIC VALUE, 1% 2% 5%
ERJ - 3KCF	0603, 1/16W 1%, PRECISION
ERJ - 3GEYF	0603, 1/16W 1%, PRECISION
ERJ - 3GEYJ / 0	0603, 1/16W 5% / JUMPER
ERJ - 3GEYK	THICK FILM CHIP RESISTOR, 0603, 1/16W 10%
ERJ - 3LW	0603, ULTRA LOW OHMIC VALUE, 1% 2% 5%
ERJ - 3RX	0603, LOW OHMIC VALUE, 1%, 5%
ERJ - 3RXD	0603, 1/16W 0.5%, PRECISION
ERJ - 6BW	0805, ULTRA LOW OHMIC VALUE, 1% 2% 5%
ERJ - 6BX	0805, LOW OHMIC VALUE, 1% 2% 5%
ERJ - 6ENF	0805, 1/10W 1% PRECISION
ERJ - 6GEYJ / 0	0805, 1/10W 5% / JUMPER
ERJ - 6GEYK	0805, 1/10W 10%
ERJ - 6RX	0805, LOW OHMIC VALUE, 1%, 5%
ERJ - 6RXD	0805, 1/10W 0.5% PRECISION
ERJ - 8BW	1206, ULTRA LOW OHMIC VALUE, 1% 2% 5%
ERJ - 8BX	1206, LOW OHMIC VALUE, 1% 2% 5%
ERJ - 8CW	1206, ULTRA LOW OHMIC VALUE, 1% 2% 5%
ERJ - 8ENF	1206, 1/8W 1% PRECISION
ERJ - 8GEYJ / 0 & ERJ-8GEYK	1206, 1/8W 5% / JUMPER
ERJ - 8RX	1206, LOW OHMIC VALUE, 1%, 5%

## CURRENT SENSING RESISTORS, METAL PLATE TYPE

ERJ - MS4	Metal plate type, 2512
ERJ - MS6	Metal plate type, 2526
ERJ - M1W	Ultra Low Ohmic Value Chip Resistor, 2512, 1W 1%, 5%

## ANTI-SURGE/ANTI-PULSE THICK FILM CHIP RESISTORS

ERJ - PA2	Anti Surge Resistors, high power, 0402
ERJ - P03/P06/P08/P14/PA3	Thick Film Chip Resistor, Anti Surge
ERJ - P6W	0805 high power
ERJ - S02	Anti Sulfur, 0402
ERJ - S03	Anti Sulfur, 0603
ERJ - S06	Anti Sulfur, 0805
ERJ - S08	Anti Sulfur, 1206
ERJ - S12	Anti Sulfur, 1812
ERJ - S14	Anti Sulfur, 1210
ERJ - S1D	Anti Sulfur, 2010
ERJ - S1T	Anti Sulfur, 2512
ERJ - T06/T08/T14	Anti Pulse, 0805 / 1206 / 1210
ERJ - U02	Anti Sulfur, 0402 Ag Pd based
ERJ - U03	Anti Sulfur, 0603 Ag Pd based
ERJ - U06	Anti Sulfur, 0805 Ag Pd based
ERJ - U08	Anti Sulfur, 1206 Ag Pd based
ERJ - U12	Anti Sulfur, 1812 Ag Pd based
ERJ - U14	Anti Sulfur, 1210 Ag Pd based
ERJ - U1D	Anti Sulfur, 2010 Ag Pd based
ERJ - U1T	Anti Sulfur, 2512 Ag Pd based

## HIGH POWER CURRENT SENSING RESISTORS, WIDE TERMINAL TYPE

ERJ - A1x	1225, Wide terminal, 5%, 1%
ERJ - B1x/B2x/B3x	2010/1206/0805, Wide terminal, 5%, 1%

## ANTI SULFURATED HIGH POWER WIDE TERMINAL CHIP RESISTORS

ERJ - C1x	1210, Wide terminal, 5%, 1%
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## EMBEDDED RESISTORS

ERJ - E01	Embedded Resistor
ERJ - E02	Embedded Resistor

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**CURRENT SENSING RESISTORS, THICK FILM TYPE**

ERJ - L14/L08/L06/L03	Low ohmic value, 1210/1206/0805/0603 1%, 5%
ERJ - L1D/L12	Low ohmic value, 2010/1812 1%, 5%
ERJ - L1W	Low ohmic value, 2512 1%, 5%

**NTC THERMISTORS**

ERT-JxxxxxxM	NTC Thermistor, SMT
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**POWER CHOKE COILS FOR AUTOTMOVIE APPLICATIONS, METAL CORE TYPE**

ETQ - P3MxxxYFN	SMT, 6.5x6.0x3.0mm MC Series
ETQ - P3MxxxYFP	SMT, 5.5x5.0x3.0mm MC Series
ETQ - P4MxxxYFN	SMT, 6.5x6.0x4.5mm MC Series
ETQ - P4MxxxYFP	SMT, 5.5x5.0x4.0mm MC Series
ETQ - P5MxxxYFK	SMT, 7.5x7.0x5.4mm MC Series
ETQ - P5MXXXYFM	SMT, 8.5X8.0X5.4MM MC SERIES
ETQ - P5MXXXYGC	SMT, 10.7X10.0X5.0MM MC SERIES
ETQ - P5MXXXYGK	SMT, 8.5X8.0X5.0MM MC SERIES
ETQ - P6MXXXYLC	SMT PCC-M1060ML
ETQ - P6MXXXYLC	SMT PCC-M1060ML

**CHIP ATTENUATORS**

EXB - 24AB	4 Resistor elements with 0 shaped circuit
EXB - 24AT	3 Resistor element

**CHIP RESISTOR ARRAYS**

EXB - 24V	Resistor Array, Chip, 0404 (2 elements)
EXB - 28N	0804 (4 elements) halogenfree
EXB - 28V	Resistor Array, Chip, 0804 (4 elements)
EXB - 2HN	8 Elements 1506 Size halogenfree
EXB - 2HV	Resistor Array, Chip, 8 Elements 1506 Size
EXB - 34V	2 elements
EXB - 38A	4 elements
EXB - 38V	4 elements
EXB - A10 ( P / E )	8 elements
EXB - AL	5 element, Low ohmic value

**CHIP RESISTOR NETWORKS**

EXB - D	RF Jumper, 1206
EXB - D10C	Thick Film, 1206, 8 elements
EXB - D6	Thick Film, 1206
EXB - E10C	Thick Film, 1608, 8 elements
EXB - Q	Thick Film, 1506, 16 elements

**ANTI-SULFURATED CHIP RESISTOR ARRAYS**

EXB - U14 / U18	2/4 elements 0201 anti-sulfur
EXB - U24 / U28 / U2H	2/4/8 elements 0402 anti-sulfur
EXB - U34 / U38	2/4 elements 0603 anti-sulfur

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