

**[Attention!] Information provided herewithin is intended for REFERENCE only.**  
**Please consult your sales representative for detail information before placing orders.**



**Direct Cross**

Referenced Series	Manufacturer	Style Referenced	Firstohm Series	Main Common Feature(s)	Main Difference(s)	Remarks on Application
CHP general	IRC / TT	Same style	MM	MELF	Dimensions, Resistance range	Note : Dimensions, Resistance range
CHP low resistance	IRC / TT	Same style	CSM	MELF / Low Resistance	Dimensions, Resistance range	Note : Dimensions, Resistance range
CHP power	IRC / TT	Same style	EPF/SFP	MELF / High power	Dimensions, TC, Resistance range	Note Dimensions, TC, Resistance range
CHP surge	IRC / TT	Same style	SRMMRM	MELF / Anti-surge	Dimensions, TC, Surge withstanding capability, Resistance range	Note : Dimensions, TC, Surge withstanding capability, Resistance range
HSF	IRC / TT	Same style	SRMSWM	MELF / Anti-surge	Dimensions,TC, Resistance range, Peak power	Note : Dimensions,TC, Resistance range, Peak power
MCHP	IRC / TT	Same style	SFP	Power MELF	Dimensions, Rated power, Resistance range	Note : Dimensions, Rated power, Resistance range
MRC 1/2	IRC / TT	Same style	EPF204	Power MELF	Dimensions, TC, Resistance range	Note : Dimensions, TC, Resistance range
ZCHP	IRC / TT	Same style	ZMM	MELF / Zero-ohm jumper	Dimensions, Current rating	Note : Dimensions, Current rating
BWR	KOA	Same style	MQM/WQM	Wirewound resistor	Dimensions, Resistance range	Note : Dimensions, Resistance range
CF / CFP	KOA	Same style	R	Carbon film	Dimensions, TC	Note : Dimensions,TC
CPCN	KOA	Same style	ISC	Ignition Noise Suppression Resistor	Dimensions, TC, Resistance range	Note :Dimensions, TC, Resistance range
CW	KOA	Same style	SWA	Anti-surge Wirewound	Dimension, Tolerance, Resistance range	Note : Dimension, Tolerance, Resistance range
HPC / PCF	KOA	Same style	C3	Ceramic composition	Dimensions, TC, Maximum surge voltage	Note : Max. permissible surge voltage, AEC-Q200 qualified (HPC)
MF / MFS /RK	KOA	Same style	M	General purpose metal film	Dimensions, Power rating, Resistance range	Note : Dimensions, Power rating, Resistance range, AEC-Q200 qualified, UL & c-UL approval
MO / MOS	KOA	Same style	MO/MO miniature size	Metal oxide resistor	Dimensions, Resistance range, TC	Note : Dimensions, Resistance range, TC
RCR	KOA	Same style	HDR	High voltage discharge resistor	Dimensions, TC	Note : Dimensions, TC
RD41	KOA	Same style	CM	MELF / Carbon film	Dimensions, Power rating	Note : Dimensions, Power rating
RF	KOA	Same style	FGE	Fusible Resistor	Dimensions, Fusing Characteristics	Note : Dimensions, Fusing Characteristics
RF25CC	KOA	Same style	FGE26C	Fusible Resistor / low resistance / Constant current fusing	Fusing Characteristics	Note : Fusing Characteristics
RN41	KOA	Same style	MMP	MELF / Metal film	Dimensions, Resistance range, Power rating, Operating temperature	Note :Dimensions, Resistance range, Power rating, Operating temperature
RNS	KOA	Same style	MP	Metal film/ Precision	Dimensions, Resistance range	Note : Dimensions, Resistance range
RW	KOA	Same style	WA	Wirewound Resistor	Dimensions, Non-inductive wire wound, Tolerance, Operate Temperature, Resistance range, TC	Note : Dimensions, Tolerance, Resistance range, TC, Operate temperature
SNF	KOA	Same style	M	Metal Film	Dimensions, Flame Retardant, Resistance range	Note : Dimensions, Flame Retardant, Resistance range
Z	KOA	Same style	ZOM	Zero ohm jumper	Dimensions	Note : Dimensions
OX	Ohmte	Same style	C3	Ceramic composition	Dimensions,TC & Resistance range	Note : Dimensions, TC & Resistance range
MGR	ROYALOHM	Same style	HVR	High voltage / VDE 0860 approved	Dimensions,TC	Note : Dimensions,TC, Maximum working voltage
EMC2	TT	Same style	SWA02	Pulse withstanding Fusible	Fusing Characteristics, Dimension, Pulse performance	Note : Dimensions, Pulse performance, Resistance range & UL recognised
ULW3	TT	Same style	SWA03	Fusible Wirewound	Fusing Characteristics, Dimension, Pulse performance	Note : Dimension, Resistance range & UL recognised
AC03...CS/AC05...CS	VISHAY	Same style	SWA03/SWA05	Fusible Wirewound	Fusing Characteristics, Dimension, Pulse performance	Note : Fusing Characteristic, Dimensions, Resistance range & UL recognised
CCF	VISHAY	Same style	MO	Metal Film/Flameproof	Dimensions, TC, Resistance range	Note : Dimensions, TC, Resistance range
CMA 0204 Power	VISHAY	Same style	SRM204T	High Pulse Load MELF	Maximum pulse load	Note : Maximum pulse load
CMA 0204 Standard	VISHAY	Same style	SRM204	High Pulse Load MELF	Maximum pulse load	Note : Maximum pulse load
CMB 0207 Power	VISHAY	Same style	SRM101T	High Pulse Load MELF	Maximum surge voltage	Note : Maximum surge voltage, AEC-Q200 qualified
CMB 0207 Standard	VISHAY	Same style	SRM207P	High Pulse Load MELF	Maximum surge voltage	Note : Maximum surge voltage, AEC-Q200 qualified
CPF	VISHAY	Same style	M EFR	High power	Dimensions,TC, Resistance range	Note : Dimensions,TC, Resistance range
FRJ	VISHAY	Same style	ZOM	Metal Film/Zero ohm jumper	Dimensions	Note : Dimensions
MMA 0204 Power	VISHAY	Same style	EPF204 / SFP204	Power MELF	TC, Resistance range, Maximum pulse load	Note : TC, Resistance range, Maximum pulse load, AEC-Q200 qualified
MMA 0204 Standard	VISHAY	Same style	MMP204	Precision MELF	TC, Resistance range, Maximum pulse load	Note : TC, Resistance range, Maximum pulse load, AEC-Q200 qualified
MMB 0207 Power	VISHAY	Same style	EPF101/ SFP101	Power MELF	TC, Resistance range, Maximum pulse load	Note : TC, Resistance range, Maximum pulse load, TC, AEC-Q200 qualified
MMB 0207 Standard	VISHAY	Same style	MMP52	Precision MELF	TC, Resistance range, Maximum pulse load	Note : TC, Resistance range, Maximum pulse load, AEC-Q200 qualified
NFR25H	VISHAY	Same style	SCP50	Overload protection without fire	Dimensions, TC	Note : Dimensions, TC
NSR	VISHAY	Same style	ISW	Wirewound Noise Suppressor	Dimensions, Resistance range, TC	Note : Dimensions, Resistance range, TC
PMM0204	VISHAY	Same style	MMP16 / MMP204	MELF / Precision	Rated power	Note : power requirement
PMM0207	VISHAY	Same style	MMP207 / MMP52	MELF / Precision	Rated power	Note : power requirement
PR01/02	VISHAY	Same style	PWR01/PWR02	Power Metal Film	Dimensions, Peak pulse voltage, Fusing Characteristics	Note :Dimensions, Peak pulse voltage, Fusing Characteristics, AEC-Q200 qualified
PTF	VISHAY	Same style	MP	High precision / High stability / Tight tolerance	Dimensions, Rated power, TC	Note : Dimensions, Rated power, TC
SMA / MK	VISHAY	Same style	PMA	Metal film / Low TC / Low tolerance	Dimensions, Resistance range, Maximum peak voltage	Note :Dimensions, Resistance range, Maximum peak voltage
SMM0204	VISHAY	Same style	MMP204	MELF / Low TCR / Tight Tolerance	Maximum pulse voltage	Note : Maximum pulse voltage, AEC-Q200 qualified
SMM0207	VISHAY	Same style	EPF101 / SFP101	MELF with high power rating	TC, Maximum pulse voltage	Note : TC, Maximum pulse voltage, AEC-Q200 qualified
LXA/LXB/LXE	VISHAY	Same style	MP	High precision / Low TC / Tight tolerance	Dimensions, TC, Resistance range	Note : Dimensions, TC, Resistance range
VR37	VISHAY	Same style	HVR50	VDE 0860 approved / High voltage	Dimensions, TC	Note : Dimensions, TC
VR68	VISHAY	Same style	HVR100 / HVR200	VDE 0860 approved / High voltage	Dimensions, TC	Note : Dimensions & TC
ZC0204	VITROHM	Same style	MMP204	MELF / Metal film	TC, Tolerance, Peak power	Note : TC, Tolerance, Peak power
ZC0207	VITROHM	Same style	EPF101	MELF / Metal film	TC, Tolerance , Peak power	Note : TC, Tolerance, Peak power
WRM0204	Welwyn/TT	Same style	MMP204	MELF / Metal film	Tolerance, Resistance range	Note : Tolerance, Resistance range
WRM0207	Welwyn/TT	Same style	MMP52	MELF / Metal film	Tolerance, Resistance range	Note : Tolerance, Resistance range

**Possible Inter-packaging-style Cross**

Referenced Series	Manufacturer	Style Referenced	Firstohm series	Main Common Feature(s)	Main Difference(s)	Remarks
WSF	VISHAY	SMD/High power metal film	SFP	SMD / High power metal film	Style/Dimensions, TC, Resistance range, Operating temperature	Note : Dimensions, TC, Resistance range, Operating temperature, AEC-Q200 qualified
WSC/WSN/WSZ	VISHAY	SMD/Precision power wirewound	SWM	SMD/Power wirewound	Style/Dimensions, TC, Resistance range, Tolerance, Operating temperature	Note : Dimensions, TC, Resistance range, Tolerance, Operating temperature, AEC-Q200 qualified
WSR	VISHAY	SMD/Power Metal Strip Resistor	CSM	SMD / Low resistance for current sensing	Style /Dimensions, Tolerance, TC, Extremely low resistance, Operating temperature	Note : /Dimensions, Tolerance, TC, Extremely low resistance, Operating temperature, AEC-Q200 qualified
CP-2M / CPSM	VISHAY	SMD/Wirewound Resistor	SWM	SMD / High power, Surge capability	Style/Dimensions, TC, Resistance range, Operating temperature	Note : /Dimensions, TC, Resistance range, Operating temperature
CRCW-1206HP e3 (0.5W) / CRCW-2512HP e3 (1.5W)	VISHAY	Pulse-Proof, High-Power Thick Film Chip Resistors	SRM 204T / SRM101T	SMD / Surge withstanding	Style/Dimensions, Tolerance, Rated power, Maximum pulse load	Note : Dimensions, Tolerance, Rated power, Maximum pulse load, AEC-Q200 Qualified
SWR06 (1/3W)	VIKING	Surge withstanding chip	MRM204 / SRM204T	SMD / Surge withstanding	Style/Dimensions, Resistance range, Rated power, Pulse power	Note : Dimensions, Resistance range, Rated power, Pulse power
SR1206 (1/4W)	YAGEO	Thick film surge chip	MRM204 / SRM204T	SMD / Surge withstanding	Style/Dimensions, Resistance range, Rated power, Pulse power	Note : Dimensions, Resistance range, Rated power, Pulse power
Chip 2512 (1W)	General	Chip	EPF101 / SFP101	SMD	Style/Dimensions, TC	Note : Dimensions, TC
CS12 (Chip 2512 - 2W)	VIKING	Current Sensing Chip Resistor	CSM202	High power rating / Low resistance for current detection	Style/Dimensions, Resistance range, Low TC	Note : Dimensions, Resistance range, TC
RLP25/RLM25 (Chip 2512 - 2W)	TAH	High Power Current Sensing	SRC202	High power rating, Low resistance for current detection	Style/Dimensions, Low TC, Resistance range, Surge performance	Note : Dimensions, Resistance range, TC, Peak surge power
FRN	UniOhm	Axial Fusible	SCM100/SWM100	Pulse withstanding Fusible	Style/Fusing Characteristics, Dimensions	Note : Fusing Characteristic, Dimensions, Resistance range