Leaded Components

Category		Power Rating(W)	1/8	1/6	1/4 Small	1/4	1/2 Small	1/2	1	2	3	5	Tolerance (%)	Note
Leaded Resistors	General	CF											±2, ±5	Carbon Film
		CFP											±2, ±5	Carbon Film Flame Retardant
	Precision	MF SN											±0.5, ±1, ±2	Metal Film MF:1/4W, 1/2W SN:1W, 2W
		SNF											±5	Metal Film Flame Retardant Low Resistance
		CWP・CW H							1W	2W	3W		CW P:±0.25,±0.5,±1 CW H:±0.5, ±1	Wire Wound, CW P:Precision, CW H:Meeting MIL-PRF-26
	Power	MOS(X)								1KΩ・J	1KΩ・J	100Ω・J	±1, ±2, ±5	:Metal Oxide Film (X):Metal Film, Low Resistance
		SPR(X)								1KΩ・J	1KΩ・J	100Ω・J	±1, ±2, ±5	:Special Power Film (X):Metal Film, Low Resistance
		CW											±2, ±5, ±10	Wire Wound
	Fusing Resistors	RF CW CWFS		RF16		RF25		RF50	RF1 CW1SS	RF2	4R7J CWFS23	100J KOA CWFS35	±5	RF:Fusing Power:2.5W～36W, Flame Retardant RF:Fusing Time:30s Max.(RF1/6W:60s Max.) CWFS・CW1SS:UL1412 Recognized
	High Voltage	RK GS								Electrohm GS3LC		GS3 3W	RK:±1, ±2, ±5 GS:±0.5～±20	Metal Glaze Film RK1/2G:Discharge Path Type, UL1676&c-UL GS:0.25W～12W
		RCR						50 50+50EN					±1, ±5	RCR25EN:EN62368-1G.10(VDE),RCR50+:UL1676&c-UL RCR50EN:EN62368-1G.10(VDE),UL1676&c-UL RCR60:EN62368-1G.10(VDE),UL1676&c-UL
		RK92						105 K 9D RK92-5L	107 K 91 RK92-8C	D326F/323・90 RK92D32C	405K RK92-L		RK92:±0.5～±20 RK92-L:±10	Metal Glaze Film (High Resistance) RK92:0.5W～4W, Flame Retardant RK92-L:4W,Possible in insulating oil
		HPC											±10, ±20	Max.Pulse Vol.(kV): 1/2W:8, 1W:15, 2W～5W:25
		PCF											±10, ±20	Max.Pulse Vol.(kV): 1/2W:10, 1W:14, 2W:20
Leaded Network Resistors	Precision	MRS・MRP	MRS1/8 0.125W		MRS1/4 0.25W		MRS1/3 0.3W		MRP (Balance Resistor)		MRP (Full Custom)		MRS:±0.01～±0.5 MRP:±0.1～±1	Metal Film MRS:Ultra Precision MRP:Excellent Resistance Matching, T.C.R. Tracking and Stabilities
Thermal Sensors	Linear PTC	LP	1/16W		1/8W								±1, ±2, ±5	−55℃～+150℃ T.C.R.:+150～+5,000
	Pt Sensor	SDT310 (P/MTM/AP) (LTC/HLTC/HCTP) (VASP, VASP2)											T.C.R.:+3,850, ClassAF0.15:±(0.15+.002|t|)℃, ClassBF0.3:±(0.3+.005|t|)℃, ClassC:±(1.0+.01|t|)℃ F0.15 and F0.3:SDT310HCTP Only SDT310P・DT310AP・DT310HCTP:−55℃～+400℃, SDT310MTM:−55℃～+650℃, SDT310LTC・SDT310HLTC:−55℃～+155℃ SDT310VASP, SDTVASP2:−55℃～+600℃ VASP, VASP2 for Automotive	
		SDT101A/SDT101SA/ SDT101B											T.C.R.:+3,500, SDT101A/SA:−55℃～+150℃ SDT101B:−55℃～+300℃ Resistance Tolerance(%):±0.5, ±1,±2(SA only),B-500Ω/SA for Automotive	

Shunt Resistors — Current Sensing

HS・BPR・LR

HS
～50W
(～1000A)

BPR26
Single Type:2W,3W,5W,10W
Twin Type:5W+5W,7W+7W

LR09L20
Diameter:0.6～2.9mm
Max.Current Rating:3~21A

Network Resistors

Type	Tolerance (%)	Note
RKL/RKC/RKH	±1, ±2, ±5	Various Types of Standard Circuits

RKL /RKC /RKH

Jumpers

Z16	Z25	Max. Allowable Current (A)
		Z16:1.5, Z25:2.5, J1/6Z:8, J1/4Z:10
J1/6Z	J1/4Z	

Power Resistor

BGR/BWR/BSR for General

BWR1 BGR5X BWR5N

BGRV/BWRV/BSRV for Automotive

BSRV20

Surface Mount Devices

Category			Type	1F	1H	1E	1J	2A	2B	2E	2H(W2H)	3A(W3A)	Tolerance (%)	Note
			Size (inch/mm)	01005 (0.4×0.2)	0201 (0.6×0.3)	0402 (1.0×0.5)	0603 (1.6×0.8)	0805 (2.0×1.25)	1206 (3.2×1.6)	1210 (3.2×2.6)	2010 (5.0×2.5)	2512 (6.3×3.1)		
Chip Resistors	General	Thick Film	RK73H/RK73B										±0.5, ±1/±2, ±5	W3A2:2W
	Jumper		RK73Z										–	50mΩ Max. (1H(RT):100mΩ Max.) 1F・1H:0.5A, 1E・J:1A, 2A～W3A:2A
	Precision		RK73G										±0.25, ±0.5, ±1	T.C.R.:±50
			RS73										±0.1, ±0.25, ±0.5, ±1	T.C.R.:±25～±50, High Reliability
	High Temperature		HSG73P										±1, ±5	Operating Temp:－55～＋200℃
	Anti Surge Anti Pulse		SG73/S/P										±10, ±20/±0.5, ±1, ±2, ±5	SG73S:For Surge, SG73P:For Pulse
			SG73G										±0.25, ±0.5	T.C.R.:±50, Precision, For Pulse
	High Voltage		HV73/HV73V										±0.5, ±1, ±2, ±5	High Max. Working Voltage 1J:350V, 2A:400V, 2B:800V, 2H:2,000V (D.C.), 3A:3,000V (D.C)
	Low Resistance		SR73										±0.5, ±1, ±2, ±5	Resistance Range:24mΩ～10Ω, T.C.R.:±100～W3A2:2W
			UR73/D/V										±1	Resistance Range:10mΩ～100mΩ T.C.R.:±75～ UR73V:For Automotive
			WU73										±1	Wide Terminal, Resistance Range:10m～100mΩ T.C.R.:±75～ ±100
	Wide Terminal		WK73							2J (3.1×4.6)			±0.5, ±1, ±5	Power Rating:0.33W～3W
			WG73										±10, ±20	For Pulse, 2B:1W,2H,1.5W,3A:2W
	Molded		SLR										±0.5, ±1, ±5	Resistance Range:301mΩ～1MΩ T.C.R.:±100
	Precision	Thin Film	RN73R/RN73H										±0.05～±1	T.C.R.:±5～±100, RN73H:High Reliability
	MELF	Carbon Film Thin Film	RD41・RN41・CC	RD41 2ES 0.25W (3.5×1.55)		RN41 2ES 0.25W/0.4W (3.5×1.55)		RN41 3AS 1W (5.9×2.4)	CC12M 2A (3.5×1.55)	CC25 5A (5.9×2.4)			RD41:±2,±5 RN41:±0.1～±5 CC:－	RD41:General RN41:Precision,T.C.R.:±25～ 50 CC:Jumper,20mΩ Max., 12M:2A,25:5A
Shunt Resistors		Current Sensing	TLR/TLRH										±1	T.C.R:±50～ ±1500(0.5mΩ・20mΩ /±50・75(6mΩ～ 270mΩ) TLR:0.5W～ 5W,TLRH:0.25W～ 5W
			TLRZ(Jumper)										–	0.2mΩ Max.(1E:0.5mΩ Max) 1E:10A,1J:26A,2A:31.6A,2B:50A
			PSL2・PSF4	PSL2 8W～9W (6.3×3.15)				PSF4 3W,5W (3.0×3.8)					±1	T.C.R. PSL2:±115 (0.5mΩ),±175 (0.3mΩ), 25±100(0.2mΩ) PSF4 ±50 (0.5mΩ,1mΩ)
			SL・TSL・SLN	SL07/W07 0.75/1W (5.0×2.5×1.7)	TSL1 1W (6.3×3.1×1.0)	SL1/W1 1/1.5W (6.3×3.1×1.9)		SL2 2W (11.5×7.0×2.5)	SLN2/3/5 2/3/7W (11.5×7.0×2.4)				±0.5, ±1, ±2, ±5	T.C.R. SL07/W07:0～200 (5mΩ～10mΩ, 0～150 (11mΩ～100mΩ) SL1/W1:±50～ 180 SL2/TSL:±100, ±180, SLZ1:Jumper SLN:±110 (3mΩ～ 9mΩ), ±75 (10mΩ～ 200m)
			BLR・LR72・CSR	BLR1 1W (14×5.5)	BLR2 2W (19×6.3)		BLR3 15W (19.3×8.2)		LR72A 0.5W (14×5.2)	CSR1 1W (10.8×6.2)		CSR2 2W (12.8×8.2)	BLR:±5, ±10 LR72:±5 CSR:±0.5, ±1	T.C.R. BLR:±100 (8mΩ～ 50Ω) LR72:±100 (2mΩ～ 8mΩ) ±350(2mΩ, 3mΩ) CSR:±50 (5mΩ～ 50mΩ)
Chip Network Resistors	Precision	Thin Film	CNN/KPC/HVD	CNN		KPC S03	N08	N16	Q16	Q20	Q24	HVD	±0.1～±5	Excellent Resistance Matching, T.C.R. Tracking And Stabilities CNN, T.C.R.:±25, Resistance:1kΩ・10KΩ 100kΩ KPC:Thin Film Resistor/Capacitor/Diode Array On Silicon Wafer HVD:High Voltage Divider (Max Working Voltage 1000V)
Thermal Sensors		Linear PTC	LT73/LT73V										±2, ±5	T.C.R.:＋150～＋4,500, LT73V:For Automotive
			LP73										±1, ±2, ±5	T.C.R.:＋3,000～＋5,000
		Pt Sensor	SDT73H/V/S										±0.2, ±1	T.C.R.:＋,3,850, －5℃～＋155℃ (SDT73S:～＋250) SDT73V:For Automotive
		NTC Thermistors	NT73										±5, ±10, ±15	B constant:3,200K～,100K Resistance:1kΩ～150kΩ
Protectors		Fusing Resistors	RF73										±5	UL1412 Recognized (2A～3A size)
		Current Fuses	TF			10BN	16SN 16AT	16VN					–	0.2A～5A, UL248.14 Recognized 16AT:Anti-pulse, 16VN: Automotive (Rated Voltage:～DC125V)
			CCF								CCF (6.0×2.5)		–	UL248.14 Recognized CCF:0.4A～15A
		Varistors	NV73/DL/DS								2J (4.5×3.2)	2L (5.7×5.0) DS (6.1×5.1)	–	Multilayer Varistor NV73DL・NV73DS:For Automotive

:Anti sulfuration are also available