



	NTC Thermistor					PTC Thermistor	
Division	Temperature Detection/Compensation					Overheat Protection	Overcurrent Protection
	General	General High Reliability Power-train Information	Power-train Information	General Power-train Information	General	General Power-train Information	General Power-train Information
Appearance							
P/N	NCP02 NCP03 NCP15 NCP18	NCU15 NCU18	NCG18	NXF*15	FTN18	PRF03 PRF15 PRF18 PRF21	PRG03 PRG18 PRG21
Overview	0402/0603/1005/1608 General Purpose	Environmental Resistance Improvement type	Conductive Adhesive Mounting type	Ultra Small Head type	Insulated Package type	0603/1005/1608/2012 Temp. Detection type	0603/1608/2012 Resettable Current fuse
Features	Available in sizes and resistance values	Supports applications that require high reliability	Not compatible with soldering	Supports lead lengths of 21 mm to 50 mm	Insulating surface can be directly attached	Control multiple points by connecting in series	Protects the circuit from abnormal current
For general use	[NCP02] -40~+125°C 10k~470kΩ  [NCP03] -40~+125°C 1k~220kΩ  [NCP15] -40~+125°C 220~470kΩ  [NCP18] -40~+125°C 220~470kΩ	[NCU15] -40~+125°C 10k~470kΩ  [NCU18] -40~+125°C 10k~470kΩ		[NXF15] -40~+125°C 2.2k~100kΩ L=21 ~50mm	[FTN18] -40~+125°C 10k~100kΩ	[PRF03] 32V, 540Ω Ts=115°C  [PRF15] 32V, 1kΩ Ts=95~115°C [PRF15] 32V, 10kΩ Ts=130°C [PRF18 ±3°C] 32V, 470Ω Ts=65~115°C [PRF21] 32V, 470Ω Ts=85~135°C	[PRG03] 15V 20V, Tc=45mA/36mA  [PRG18] 24V, Tc=21~71mA  [PRG21] 16V, 20V, Tc=195mA, 91~116mA
		[NCU15] -40~+150°C 10k~470kΩ  [NCU18] -40~+150°C 10k~470kΩ	[NCG18] -40~+150°C 10kΩ	[NXF15] -40~+150°C 2.2k~100kΩ L=21 ~50mm  2.2k, 3kΩ: ~+125°C		[PRF18] 32V, 470Ω Ts=65~115°C  [PRF18 ±3°C] 32V, 470Ω Ts=65~115°C	[PRG18] 16V, Tc=29~71mA  [PRG21] 16V, 20V, Tc=195mA, 102mA
Application	<ul style="list-style-type: none"> <li>Mobile digital home appliances</li> <li>Secondary battery, LED</li> <li>Various circuits and electronic components</li> </ul>	<ul style="list-style-type: none"> <li>FA equipment, measuring equipment</li> <li>In-vehicle equipment such as EV powertrain and</li> </ul>	<ul style="list-style-type: none"> <li>In-vehicle equipment such as EV powertrain and ADAS</li> </ul>	<ul style="list-style-type: none"> <li>White goods, healthcare equipment</li> <li>BMS for EV, motor</li> </ul>	<ul style="list-style-type: none"> <li>Wearable equipment, electronic cigarettes</li> <li>Inverter</li> </ul>	<ul style="list-style-type: none"> <li>Notebook PC, tablet PC</li> <li>LED TV</li> <li>EV, BMS, LED lights</li> </ul>	<ul style="list-style-type: none"> <li>Power tools, servo motors, PLC</li> <li>Proximity / photoelectric sensor</li> <li>EV, BMS, LED lights</li> </ul>