

AutomotiveThickFilmResistor

AEC-Q200 qualified, high reliability, high stability Anti-sulfur Suitable for reflow and wave soldering RoHS compliant

Introduction

Driving is closely related to life safety. Stress test qualification for passive components (AEC-Q200) requires each part to achieve the highest quality and reliability standard, even near zero failure rate. Based on the MIL standard, AEC-Q200 specifies some reliability tests, including load life test, thermal shock, high humidity, high temperature storage, high temperature operation, moisture resistance and so on. The automotive thick film resistor can be used not only for various types of vehicles, but also for all application which request high reliability, such as medical, electric power, railway and instruments.



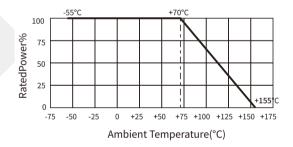
Specifications									
Model	Rated Power (70°C)	Resistance Range & Tolerance			Working	Overload	Jumper	Jumper	Operating
		±0.1%(B)	±0.5%(D)	±1%(F)	Voltage	Voltage	Resistance	Current	Temp.Range
AECR0402	0.063W	10Ω≤R≤1MΩ		1Ω≤R≤10MΩ	50V	100V	<50mΩ	1A	
AECR0603	0.100W	10Ω≤R≤1MΩ		1Ω≤R≤10MΩ	75V	150V	<50mΩ	1A	
AECR0805	0.125W	10Ω≤R≤1MΩ		1Ω≤R≤10MΩ	150V	300V	<50mΩ	2A	
AECR1206	0.250W	10Ω≤R≤1MΩ		1Ω≤R≤10MΩ	200V	400V	<50mΩ	2A	-55°C~+155°C
AECR1210	0.500W	10Ω≤R≤1MΩ		1Ω≤R≤10MΩ	200V	400V	<50mΩ	2A	
AECR2010	0.750W	10Ω≤R≤1MΩ		1Ω≤R≤10MΩ	200V	400V	<50mΩ	2A	
AECR2512	1.000W	10Ω≤R≤1MΩ		1Ω≤R≤10MΩ	200V	400V	<50mΩ	2A	

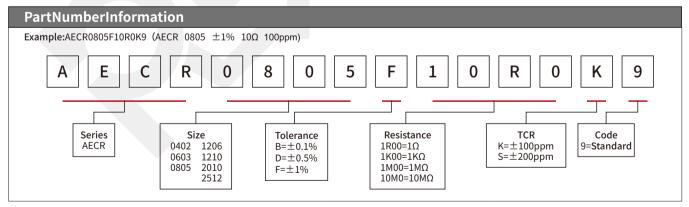
TCR

Resistance	1Ω-10Ω	>10Ω			
TCR	±200ppm(S)	±100ppm(K)			

Packaging

Size	0402	0603	0805	1206	1210	2010	2512
Quantity	10000/R	5000/R	5000/R	5000/R	5000/R	4000/R	4000/R

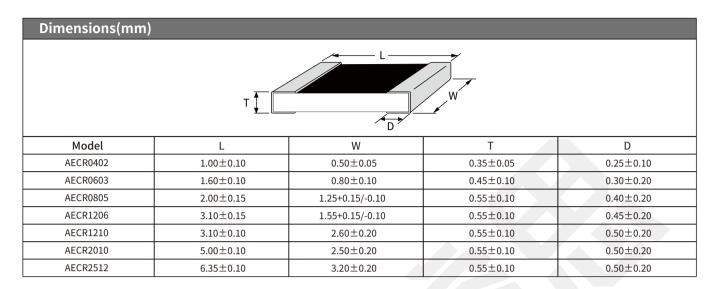




A, Jumper resistance code is 0000, tolerance code is F(Resistance is less than $10m\Omega$), TCR code is K example: AECR2512F0000K9(2512 0Ω 2A); B, The rated current of jumper in size 0402-0805 is 1A, the rated current of 1206-2512 is 2A; C, Storage condition is 5°C-30°C, 30%-70%R.H..



AutomotiveThickFilmResistor



Perform	Performance					
Test	Standard	TestMethod				
Short Time Overload	$\pm 1\%$: $\pm (1.0\% + 0.05\Omega)$ $\pm 5\%$: $\pm (2.0\% + 0.05\Omega)$	2.5times the rated voltage(≤maximum overload voltage),5s				
High Temp.& High Humidity	±1%:±(1.0%+0.05Ω) ±5%:±(3.0%+0.05Ω)	+85°C , 85%RH , 10% rated power,1000h Measured after 24±4h				
Load Life	±1%:±(1.0%+0.1Ω) ±5%:±(3.0%+0.1Ω)	1000 h at +125°C , apply derated power of continuous working voltage(36%), 90 min on , 30 min off				
Resistance to Solder Heat	±1%:±(0.5%+0.05Ω) ±5%:±(1.0%+0.05Ω)	+270°Ctinbath,holdfor10s				
Solderability	Covera gearea is not less than 95%	1.Bakeat +155°C dry heat for 4 h,immerse for 5 ± 0.5 s at +245 ±3 °C 2.Steam aging for 8 h , immersed in +260 ±3 °Cfor30 ±0.5 s				
Substrate Bending	±(1.0%+0.05Ω)	AECR0402-AECR1206 3mm/AECR1210-AECR2512 2mm hold for 60±5s				
Anti-Sulfur	±5%:±(5.0%+0.05Ω) ±1%:±(1.0%+0.05Ω)	Hydrogen sulfide 3~5PPM,+50°C±2°C , 91%~93% RH , 1000 h				

