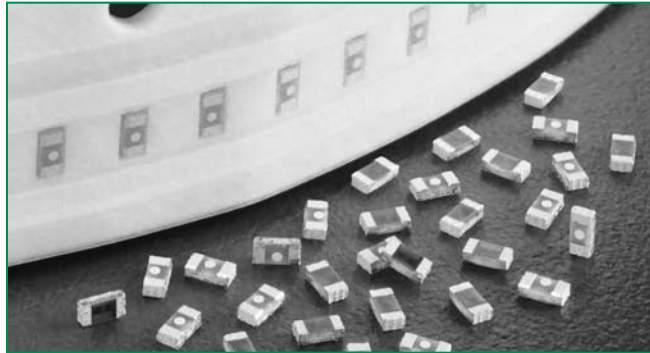


RoHS **435 Series Fuse**



### Description

The 435 series fast-acting surface mount fuse series is an ultra small (EIA 0402) thin-film device designed for secondary protection of circuits used in space constrained applications such as hand-held and portable electronic devices.

This series of devices are 100% lead-free and meet the requirements of the RoHS directive.

### Features

- 35A interrupt rating at 32VDC
- Small size with current ratings of 0.25 to 5.0 amperes
- RoHS compliant and lead-free
- Fuse opens consistently in <5sec at 200% rated current for maximum protection of sensitive circuits
- Enhanced Breaking Capacity, High I<sup>2</sup>t

### Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	0.250 – 5.0A
	029862_0_000	0.250 – 5.0A

### Applications

Secondary protection for space constrained applications such as:

- Cell phones
- Battery packs
- Digital cameras
- DVD players
- Hard disk drives

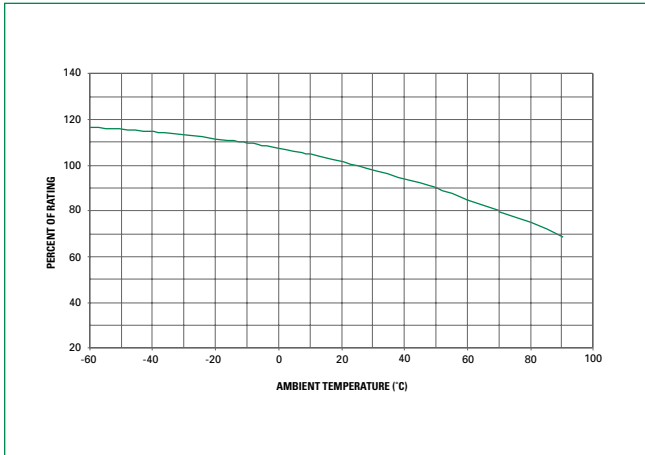
### Electrical Characteristics

% of Ampere Rating	Opening Time
100%	4 hours, Minimum
200%	5 seconds, Maximum
300%	0.2 seconds, Maximum

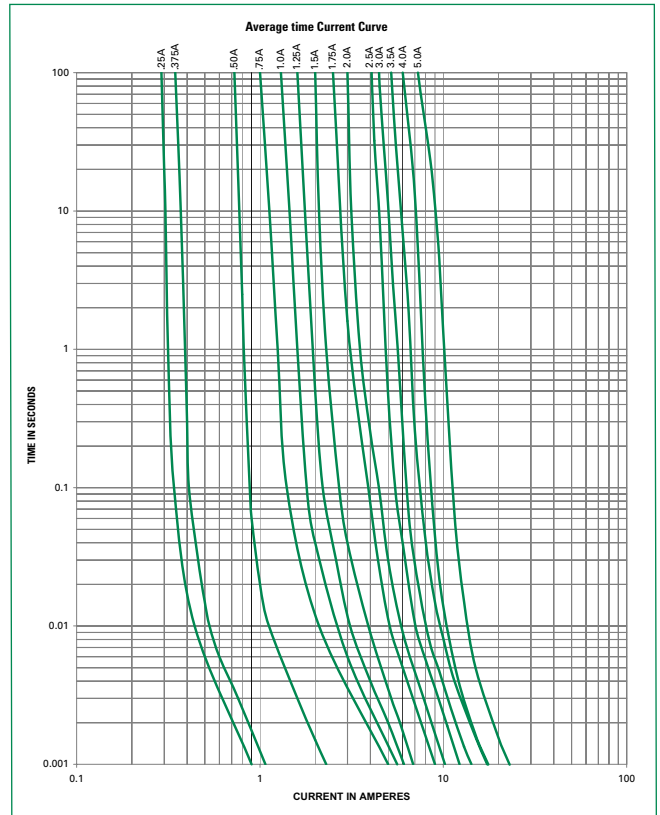
### Electrical Characteristics

Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Nom Voltage Drop (mV)	Nom Power Dissipation (W)	Agency Approvals	
0.250	.250	32	35 @ 32VDC	0.400	0.0025	61.82	0.01546	x	x
0.375	.375	32		0.193	0.0035	84.64	0.03174	x	x
0.500	.500	32		0.160	0.0053	93.35	0.04668	x	x
0.750	.750	32		0.105	0.0120	101.84	0.07638	x	x
1.00	001.	32		0.073	0.0200	87.45	0.08745	x	x
1.25	1.25	32		0.060	0.035	96.37	0.12046	x	x
1.50	01.5	32		0.047	0.056	86.70	0.13005	x	x
1.75	1.75	32		0.039	0.075	81.13	0.14198	x	x
2.00	002.	32		0.030	0.100	70.62	0.1412	x	x
2.50	02.5	32		0.0185	0.1560	55.25	0.13813	x	x
3.00	003.	32		0.0165	0.2032	60.58	0.1874	x	x
3.50	03.5	32		0.0135	0.3017	57.84	0.20244	x	x
4.00	004.	32		0.0115	0.3084	57.00	0.22800	x	x
5.00	005.	32		0.0085	0.5310	52.44	0.26220	x	x

### Temperature Derating Curve

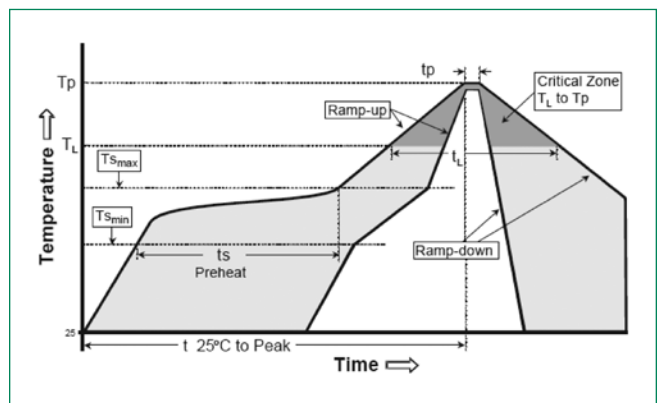


### Average Time Current Curves



### Soldering Parameters

Reflow Condition	Pb – Free assembly	
Pre Heat	- Temperature Min ( $T_{s(min)}$ )	150°C
	- Temperature Max ( $T_{s(max)}$ )	200°C
	- Time (min to max) ( $t_s$ )	60 – 180 secs
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)	5°C/second max	
$T_{s(max)}$ to $T_L$ - Ramp-up Rate	5°C/second max	
Reflow	- Temperature ( $T_L$ ) (Liquidus)	217°C
	- Temperature ( $t_L$ )	60 – 150 seconds
Peak Temperature ( $T_p$ )	250 <sup>+0/-5</sup> °C	
Time within 5°C of actual peak Temperature ( $t_p$ )	20 – 40 seconds	
Ramp-down Rate	5°C/second max	
Time 25°C to peak Temperature ( $T_p$ )	8 minutes Max.	
Do not exceed	260°C	

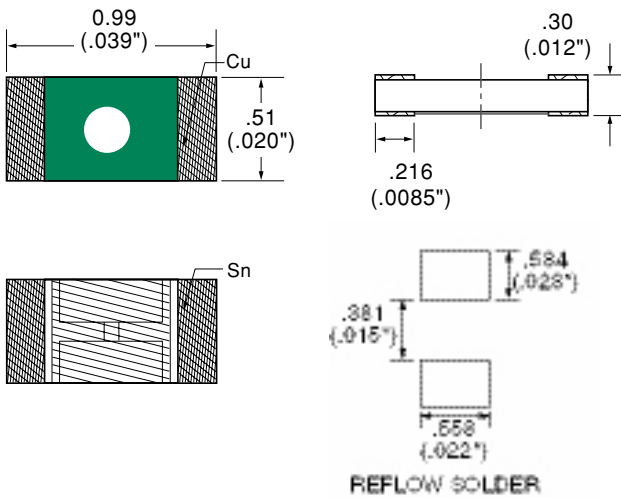


## Product Characteristics

<b>Material</b>	Body: Epoxy/Glass Substrate Terminations: Copper/Nickel/Tin Device Weight: 0.316mg
<b>Terminal Strength</b>	MIL-STD-202F Method 211A, Test Condition A
<b>Insulation Resistance</b>	After Opening: Greater than 10,000Ohms

<b>Operating Temperature</b>	-55°C to 90°C
<b>Thermal Shock</b>	Withstands 5 Cycles at -55°C to +125°C)
<b>Vibration</b>	MIL-STD-202F

## Dimensions

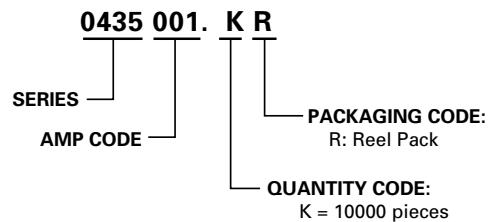


## Part Marking System

### Marking Codes:

	.250		1.0
	.875		1.25
	.5		1.5
	.750		1.75
	2.0		2.5
	3.0		3.5
	4.0		5.0

## Part Numbering System



## Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
8mm Tape and Reel	EIA-481-1 (IEC 286, part 3)	10000	KR