251/253 Series, PICO[®] II, Very Fast-Acting Fuse RoHS





Agency Approvals

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Agency	Agency File Number	Ampere Range		
.91	E10480	62mA - 15A		
<u>ج</u>	LR 29862	62mA - 15A		
PSE	JET 1896-31007-1001	1A - 5A		
τυν	J02037794	500mA - 10A		
QPL	FM10	62mA - 15A		

Description

The PICO[®] II Very Fast-Acting Fuse is designed to meet an extensive array of performance characteristics in a space-saving subminiature package.

Features

- Very fast-acting
- Small size
- Wide current rating range (62mA- 15A)

Applications

Secondary protection for space constrained applications

- LCD backlight inverter

- RoHS compliant
- Wide operating temperature range
- Low temperature de-rating

- Flat-panel display TV
- LCD monitor
- Office machines
- Power supply
- Audio/Video system
- Lighting system
- Medical equipment

Electrical Characteristics

% of Ampere Rating	Ampere Rating	OpeningTime
100%	1/16–15	4 Hours, Min.
	1/16–7	1 Seconds, Max.
200%	10	3 Seconds, Max.
	12-15	10 Seconds, Max.

Electrical Characteristics

A		Outering	Oudering	Max		Nominal	Nie weine d	Nom					
Ampere Rating (A)	Amp Code	Ordering Number (Std.)	Ordering Number (Mil.)	Voltage Rating (V)	Interrupting Rating	Cold Resistance (Ohms)	Nominal Melting I²t (A² sec)	Voltage Drop (mV)	.71	(PS E	τυν	QPL
.062	.062	251.062	253.062	125		7.000	0.000113	1.4	X	Х			Х
.125	.125	251.125	253.125	125		1.700	0.00174	0.285	X	Х			x
.250	.250	251.250	253.250	125		0.665	0.0116	0.24	x	Х			x
.375	.375	251.375	253.375	125		0.395	0.0296	0.215	x	Х			x
.500	.500	251.500	253.500	125		0.280	0.0598	0.2165	x	Х		x	x
.750	.750	251.750	253.750	125		0.175	0.153	0.176	x	Х		x	x
1.00	001.	251001.	253001.	125	300 amperes	0.128	0.256	0.194	x	Х	x	x	x
1.25	1.25	2511.25		125	at rated	0.100	0.390	0.2	x	Х	x	X	
1.50	01.5	25101.5	25301.5	125	voltage VDC	0.0823	0.587	0.21	x	Х	x	X	x
2.00	002.	251002.	253002.	125	Ŭ	0.0473	0.405	0.141	x	Х	x	x	x
2.50	02.5	25102.5		125	50 amperes at	0.0360	0.721	0.132	X	Х	X	X	
3.00	003.	251003.	253003.	125	rated voltage VAC	0.0290	1.19	0.131	X	Х	x	x	x
3.50	03.5	25103.5		125	VAC	0.0240	1.58	0.1205	X	Х	X	X	
4.00	004.	251004.	253004.	125		0.0204	2.45	0.114	X	Х	X	X	X
5.00	005.	251005.	253005.	125		0.0155	4.14	0.11	X	Х	X	X	х
7.00	007.	251007.	253007.	125		0.0105	10.4	0.102	X	Х		X	X
10.0	010.	251010.	253010.	125		0.00705	25.5	0.1	X	Х		X	X
12.0	012.	251012.		32		0.0055	45.2	0.0878	X	Х			
15.0	015.	251015.	253015.	32		0.00446	68.8	0.071	X	Х			х

Note: Higher ampere ratings are available. Please contact Littelfuse Technical Support or your Littelfuse products representative for assistance.

Cartridge and Axial Lead Fuses PICO[®] II > Very Fast-Acting > 251/253 Series

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Temperature Rerating Curve

Average Time Current Curves



Soldering Parameters

Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation		
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)		
Temperature Minimum:	100° C		
Temperature Maximum:	150° C		
Preheat Time:	60-180 seconds		
Solder Pot Temperature:	260° C Maximum		
Solder Dwell Time:	2-5 seconds		

Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350° C +/- 5°C Heating Time: 5 seconds max.

Note: These devices are not recommended for IR or Convection Reflow process.





Product Characteristics

Materials	Encapsulated, Epoxy-Coated Body: Pure Tin-coated Copper wire leads		
Solderability	MILSTD-202, Method 208		
Lead Pull Force	MIL-STD-202, Method 211, Test Condition A (will withstand a 7lbs. axial pull test)		
Fuses To MIL SPEC	251/253 Series is available in FM10 on QPL for MILPRF-23419. To order, change 251 to 253		

Operating Temperature	–55°C to +125°C
Shock	MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds)
Vibration	MIL-STD-202, Method 201 (10–55 Hz); Method 204, Test Condition C (55–2000 Hz at 10 G's Peak)
Moisture Resistance	MIL-STD-202, Method 106
Resistance to Soldering Heat	Withstands 60 seconds above 200°C and up to 260°C, maximum
Flammability Rating	UL 94V-0

Part Numbering System



Dimensions





Packaging

Packaging Option	Packaging Specification	Quantity & Packaging Code		
*T1: 52.4mm (2.062") Tape and Reel	EIA 296	Please refer to available quantities		
**T3: 73mm (2.874') Tape and Reel	EIA 296	above in "Part Numbering System"		

The default lead length for both ammo pack and loose pack is T1 for 251 and is T3 for 253.

Notes: * T1 dimension is defined as the length of the component between the two tapes. The full component length is 62.7mm (2.468'). T1 length is for 251 series only. ** T3 dimension is defined as the length of the component between the two tapes. The full component length is 83.3.7mm (3.28"). T3 length is for 253 series only.