



Description

12.100 Series are the fuses set the industry standard for performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical subminiature fuses.

Features

- Rapid interruption of excessive current
- Compatible with reflow and wave solder
- Ceramic and glass construction
- One time positive disconnect
- Lead free and Halogen free material

Electrical Characteristics

Rated Current	% of Amp Rating	Opening Time
250mA~10A	100%	4hours, min
1A~3A	200%	1.0s - 60 s
1A~5A	250%	5.0s max
1A~5A	300%	0.1s - 3.0 s
250mA~750mA	350%	5.0s max
6A~10A	350%	5.0s max
250mA~10A	1000%	0.2ms - 20.0 ms

Applications

- Secondary circuit protection
- Laptop, notebook, netbook
- Flat panel displays
- High definition television(HDTV)
- LCD/LED backlighting
- Computers and peripherals
- Gaming console systems
- Handheld/portable equipment
- Mobile device charges
- Automotive
- Central body control module
- Heating ventilation and air conditioning
- Doors,window lift and seat control
- Digital instrument cluster
- In-vehicle infotainment and navigation
- Electric pumps,motor control and
- Powertrain control module(PCU)/Engine
- Transimission Control Unit(TCU)

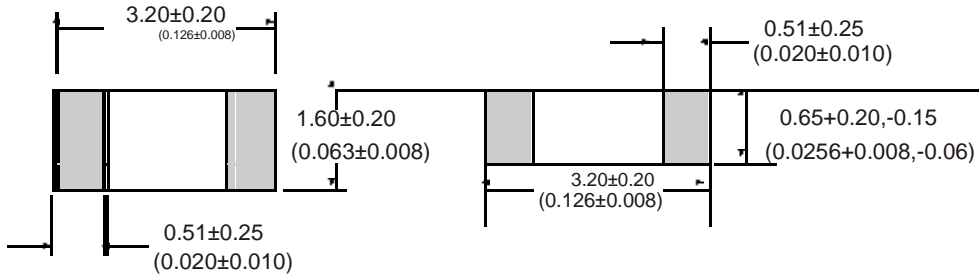
Agency information

File Number:E365879, Guide JDYX2/JDYX8

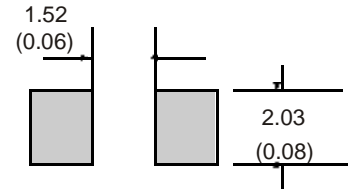
Specification

Part No.	Rated Voltage			Rated Current	Breaking Capacity	Typical Cold Resistance (mOhms) ²	Typical Voltage Drop (mV)	Typical Pre-Arcing I ² t (A ² Sec) ³	Marking			
12.100.0.25	7 2 V d c	63Vdc	32Vdc c/24 Vdc	250mA	100A @72 Vdc 100A@63Vdc	3700	1350	0.00038	I			
12.100.0.375				375mA		1850	720	0.00077	E			
12.100.0.5				500mA		1050	690	0.0019	B			
12.100.0.75												
12.100.1												
12.100.1.5							750mA	775	680	0.15	C	
12.100.2							1A	485	550	0.18	H	
12.100.2.5							1.5A	218	355	0.4	K	
12.100.3							2A	133	310	1.1	N	
12.100.3.5							2.5A	79	230	1.7	O	
12.100.4	-	-	-	3A	-	49	185	2.2	P			
12.100.4.5				3.5A		37	175	2.7	R			
12.100.5				4A		33	160	3.2	S			
12.100.6				4.5A		28	150	4.2	X			
12.100.7				5A		22	135	6	T			
12.100.8				6A		15.5	140	12	F			
12.100.10				7A		11.5	120	18	J			
							8A		8.0	100	18	V
							10A		7.0	90	30	U

Dimensions (Unit: mm/inch)



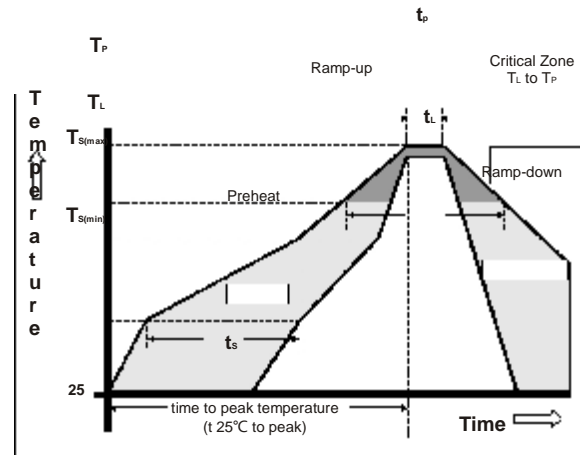
Pad layout



Installation Recommendations

1 Wave 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 – 120 seconds
Average Ramp-up Rate (Liquidus Temp (T_L) to peak)		3°C/second max.
TS(max) to T_L - Ramp-up Rate		5°C/second max.
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_r)	60 – 150 seconds
Peak Temperature (T_p)		260+0/-5°C
Time within 5°C of actual peak Temperature (t_p)		30 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C



Solder Pot Temperature: 260°C max
Solder Dwell Time: 10 Seconds max

2 Hand-Solder Parameters

Solder Iron Temperature: 280±5°C
Heating Time: 5 Seconds min
Generally, hand-soldering is not recommended

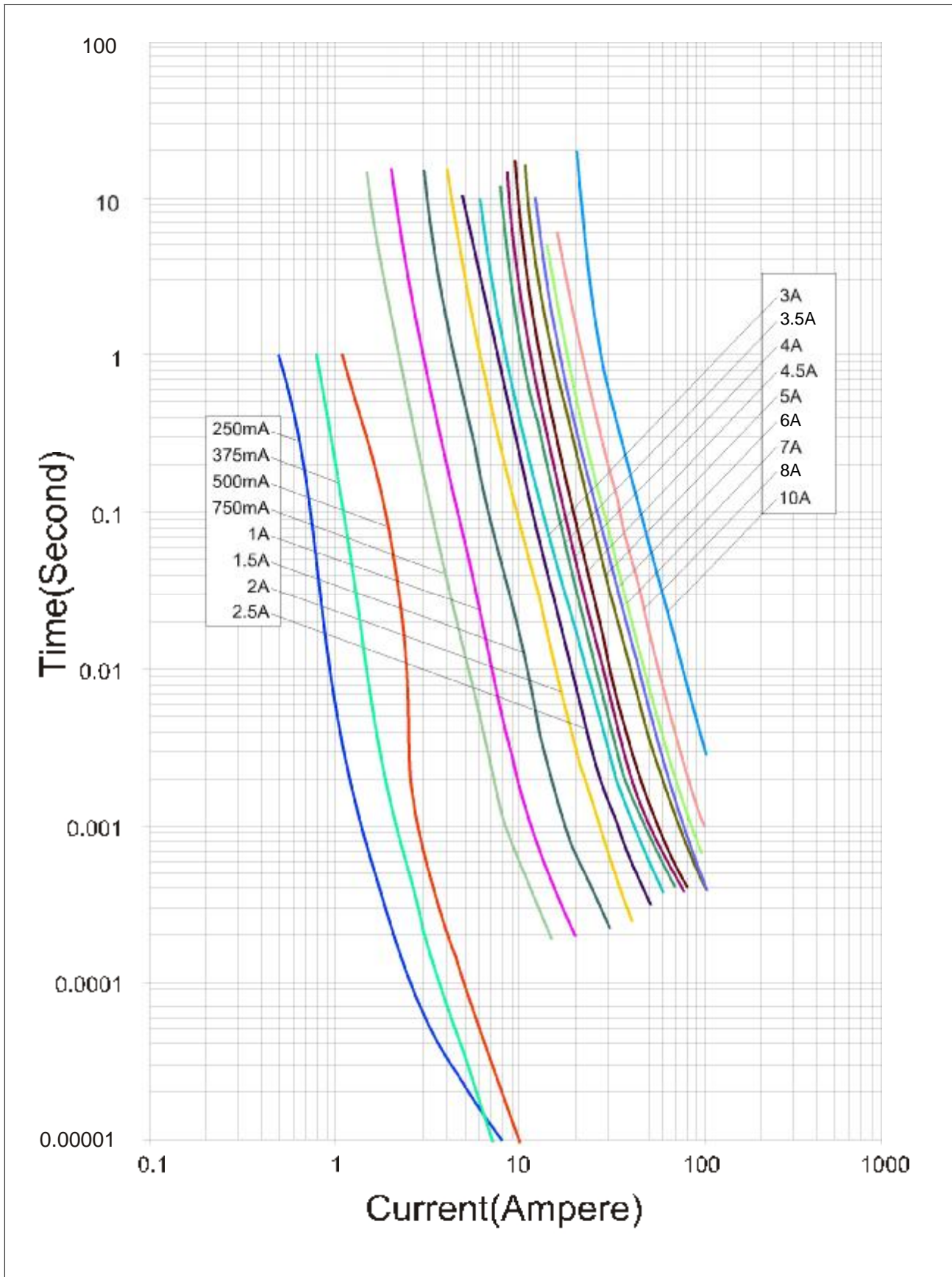
Part Numbering System



Product Characteristics

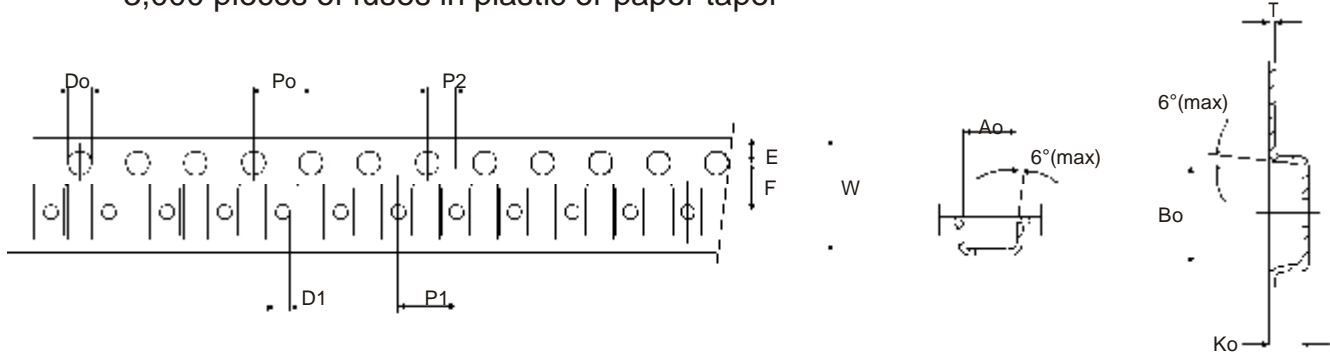
Materials	Body: Ceramic Terminators: Silver over-plated with tin Element: Alloy (Ag, Cu, Zn) Cover Coat: Glass
Operating Temperature	-55°C to 125°C Consult temperature derating curve chart.
Thermal Shock	300 cycles -55°C to 125°C
Humidity	MIL-STD-202F, Method 103B, Condition D
Vibration	Per MIL-STD-202F, Method 201A
Insulation Resistance (After Opening)	Greater than 10,000 ohms
Resistance to Soldering Heat	MIL-STD-202G, Method 210F, Condition D

Time Current Curve



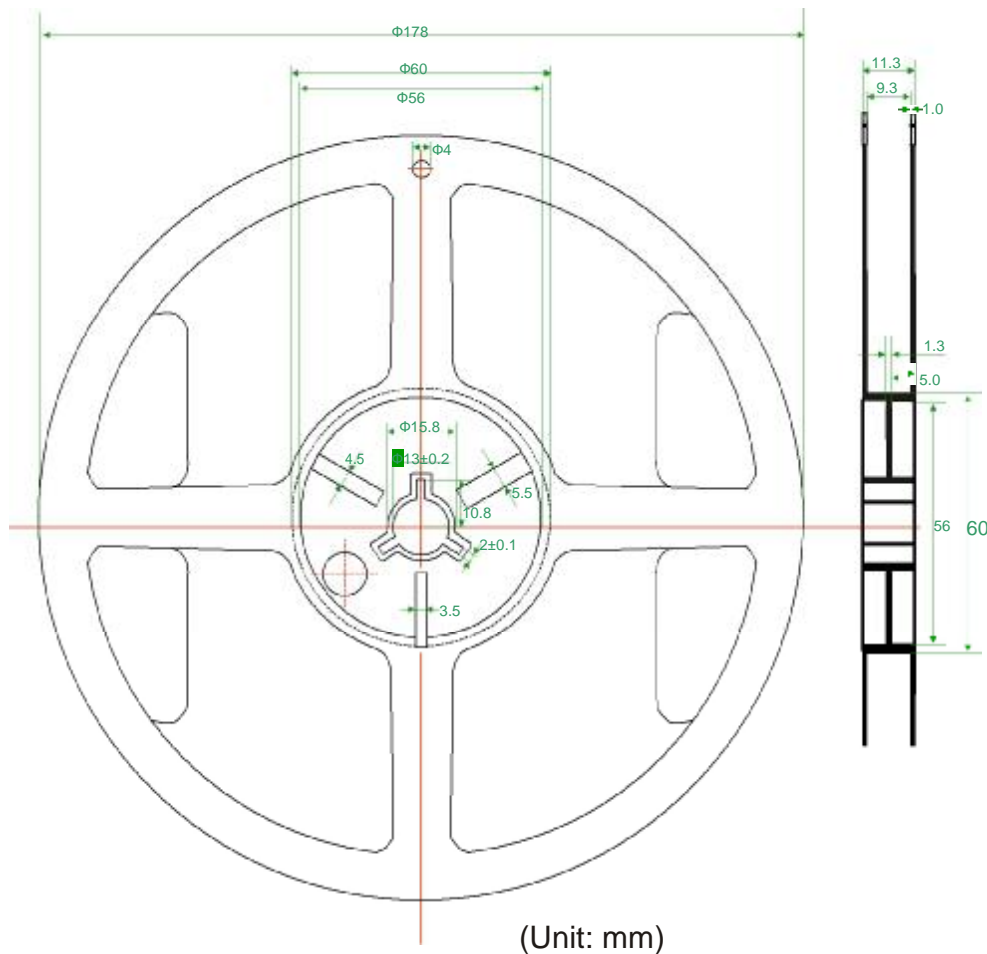
Packaging

3,000 pieces of fuses in plastic or paper taper



Symbol	Ao	Bo	Ko	Po	P1	P2
Spec	1.80±0.10	3.50±0.10	1.27±0.10	4.00±0.10	4.00±0.10	2.00±0.10
Symbol	E	F	Do	D1	W	T
Spec	1.75±0.10	3.50±0.10	1.50±0.10	1.00(Max)	8.00±0.10	0.23±0.02

(Unit: mm)



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