1206 FAST ACTING SMD FUSES

R12.000 Series 250mA-30A 72Vdc/63Vdc/32Vdc/24Vdc

E340427



Description

R12.000 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

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)

Electrical Characteristcs

Rated Current	% of Amp Rating	Opening Time
250mA~30A	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~30A	350%	5.0s max
250mA~30A	1000%	0.2ms - 20.0 ms

Agency information

File Number:E340427, Guide JDYX2/JDYX8

Specifications

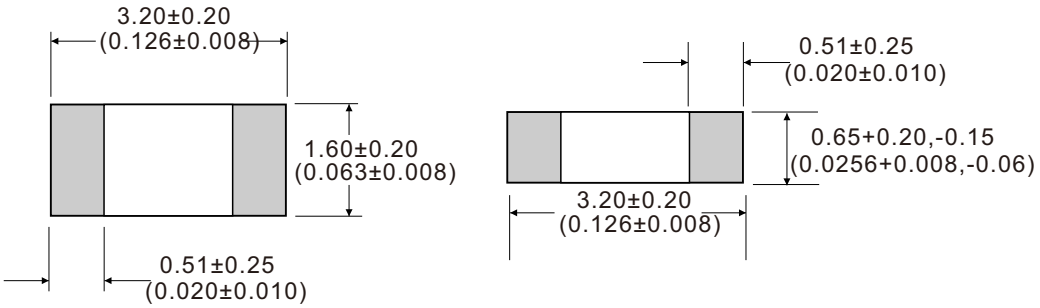
Part No.	Rated Voltage (V)				Rated Current (A)	Breaking Capacity (A)			Typical Cold Resistance (mOhms)	Typical Voltage Drop (mV)	Typical Pre-Arcing I²t (A²Sec)	Marking
R12.000.0.25	125Vdc	72Vdc	63Vdc	32Vdc/24Vdc	250mA	100A@72Vdc	100A@63Vdc	100A@32Vdc 300A@24Vdc	3700	1350	0.00038	.25
R12.000.0.375					375mA				1850	720	0.00077	E
R12.000.0.5					500mA				1050	690	0.0019	B
R12.000.0.75					750mA				775	680	0.15	G
R12.000.1					1A				485	550	0.18	H
R12.000.1.5					1.5A				218	355	0.4	K
R12.000.2					2A				133	310	1.1	N
R12.000.2.5					2.5A				79	230	1.7	O
R12.000.3					3A				49	185	2.2	P
R12.000.3.5	-				3.5A				37	175	2.7	R
R12.000.4					4A				33	160	3.2	S
R12.000.4.5					4.5A				28	150	4.2	X
R12.000.5					5A				22	135	6	T
R12.000.6		-			6A	-			15.5	140	12	F
R12.000.7					7A				11.5	120	18	J
R12.100.8					8A		-		8.0	100	18	V
R12.000.10			-		10A				7.0	90	30	U
R12.000.12		-			12A	-			5.9	85	45	W
R12.000.15					15A				3.8	75	63	Y
R12.000.20					20A				2.9	70	80	Q
R12.000.25					25A				1.6	60	90	25
R12.000.30					30A				1.3	60	100	30

R12.000 Series 250mA-30A 72Vdc/63Vdc/32Vdc/24Vdc

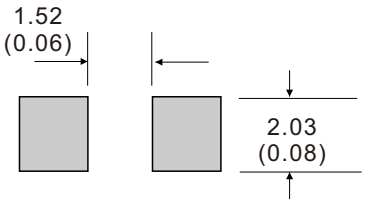
E340427

Dimensions

(Unit: mm/inch)



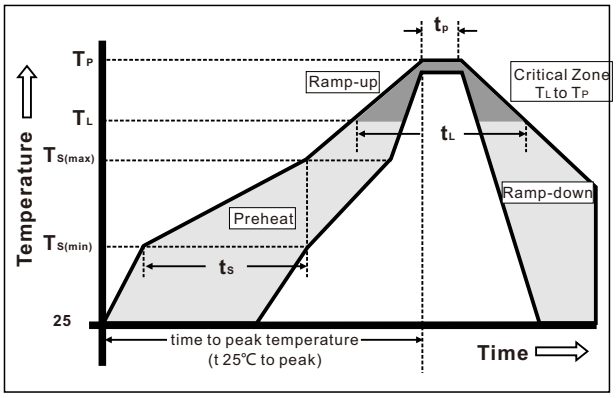
Pad layout



Installation Recommendations

1 Wave Soldering Paameters

Reflow Conditon		Pb-free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150℃
	- Temperature Max ($T_{s(max)}$)	200℃
	- Time (Min to Max) (t_s)	60 – 120 seconds
Average Ramp-up Rate (Liquidus Temp (TL) to peak)		3℃/second max.
TS(max) to TL - Ramp-up Rate		5℃/second max.
Reflow	- Temperature (TL) (Liquidus) - Temperature (tL)	217℃ 60 – 150 seconds
Peak Temperature (T_P)		260+0/-5℃
Time within 5℃ of actual peak Temperature (t_p)		30 seconds
Ramp-down Rate Time 25℃ to peak Temperature (T_P) Do not exceed		6℃/second max 8 minutes max. 260℃



Solder Pot Temperature: 260°C max

Solder Dwell Time: 10 Seconds max

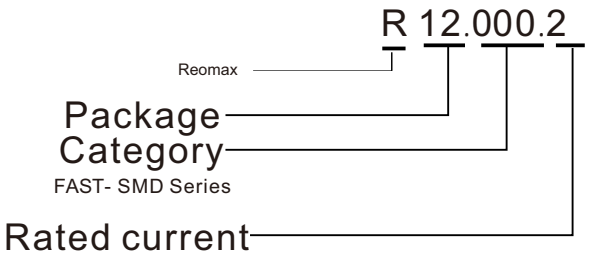
2 Hand-Solder Parameters

Solder Iron Temperature: 280±5°C

Heating Time: 5 Seconds min

Generally,hand-soldering is not recommended

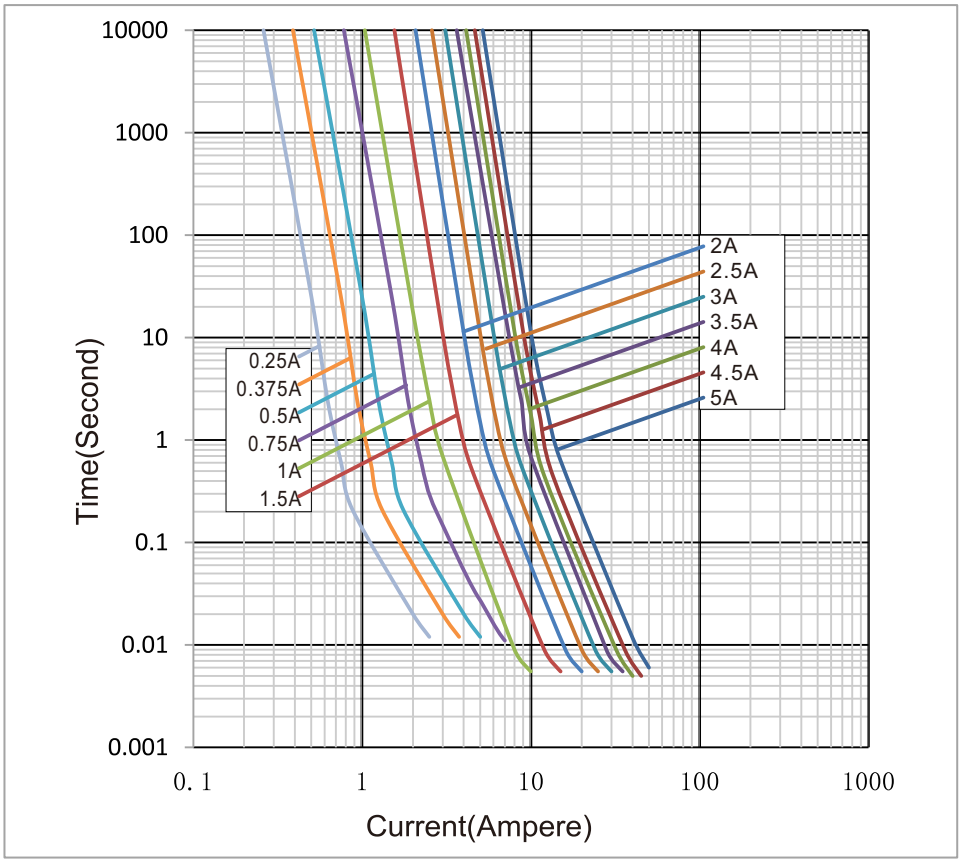
Part Numbering System

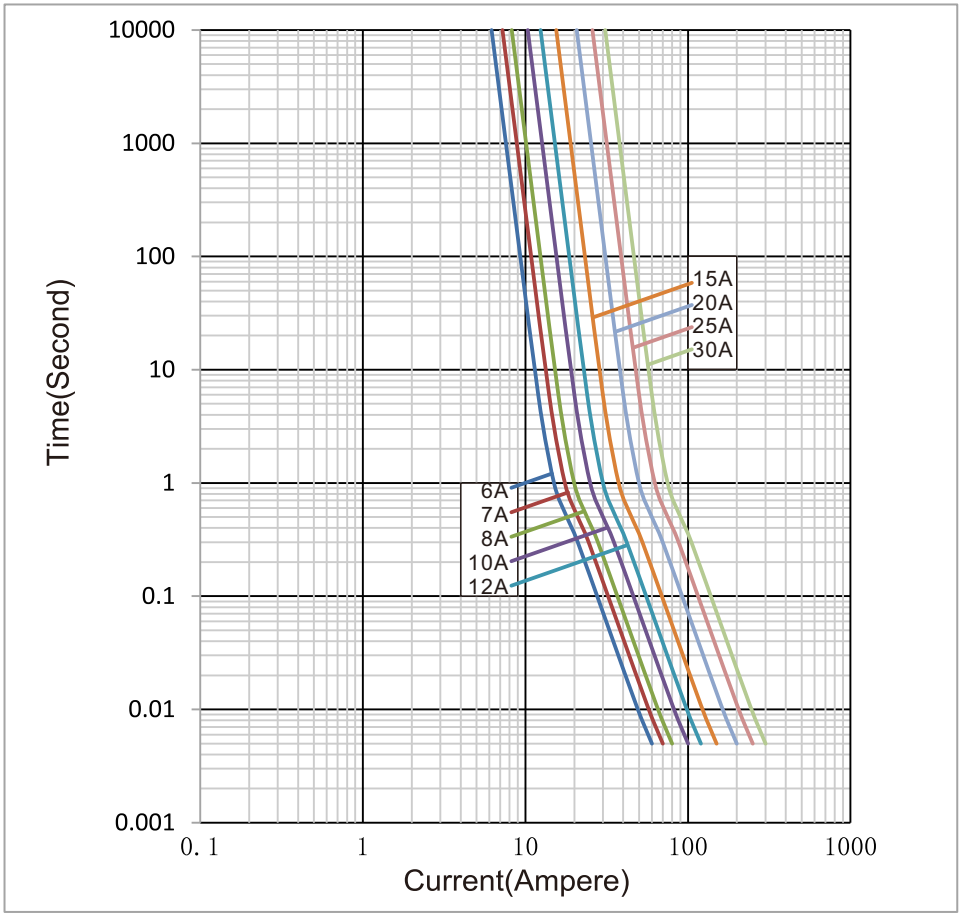


Product Characteristics

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

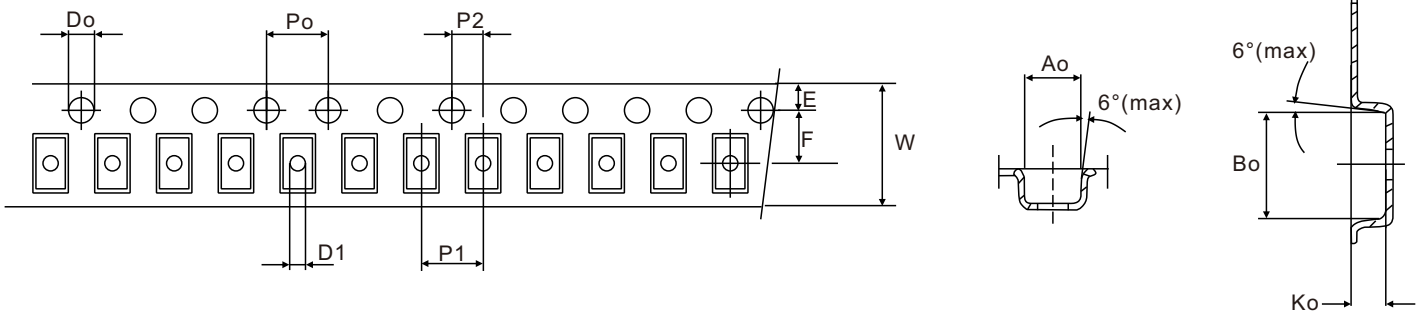
Time Current Curve





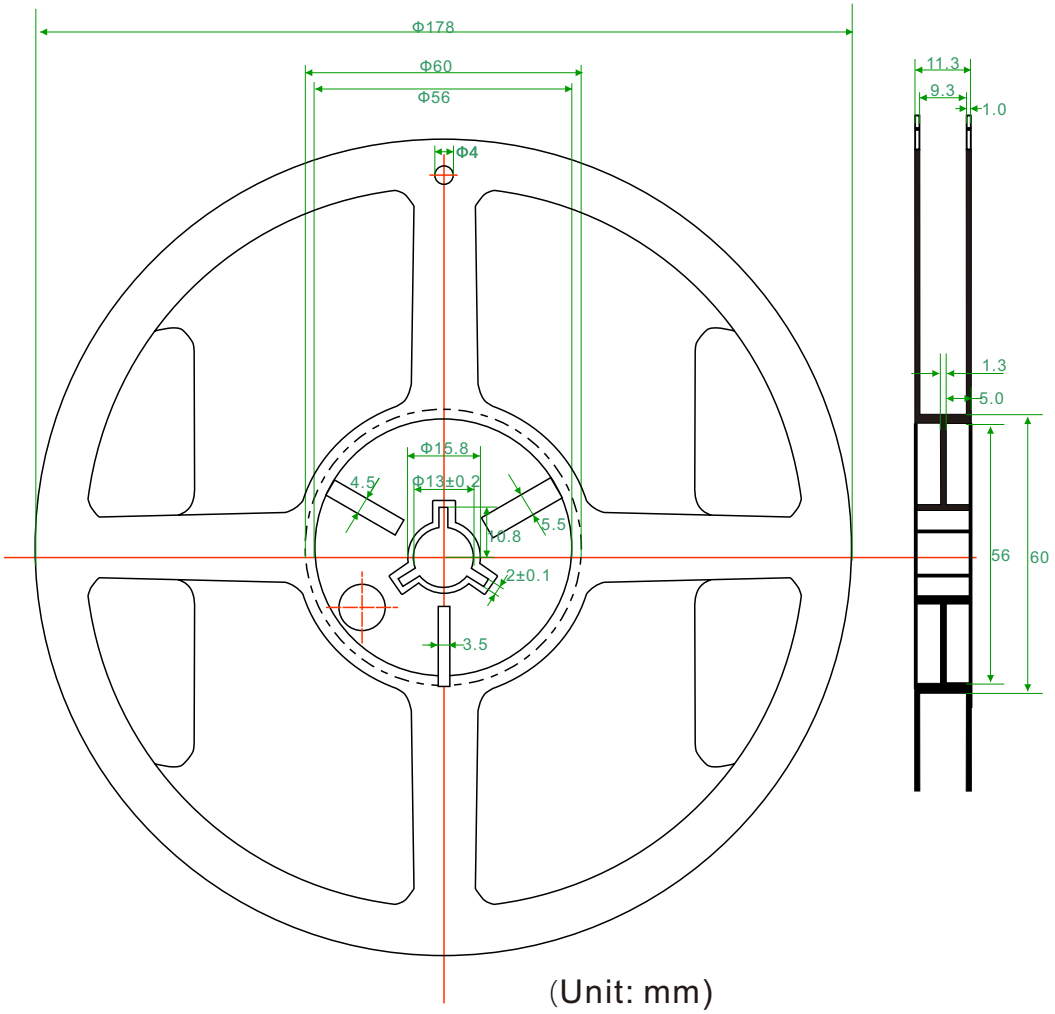
Packaging

3,000 pieces of fuses in plastic or paper taper (3000pcs)



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	0.25±0.05

(Unit: mm)



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