

## »Performance Specification

Model	I-hold	I-trip	Vmax	Imax	Pd typ	Max. Time to trip		R0 min	R1max
	(A)	(A)	(Vdc)	(A)	(W)	Current	Time		
	(A)	(A)	(Vdc)	(A)	(W)	(A)	(Sec.)	(Ohm)	(Ohm)
SMD1206-005/30N	0.05	0.15	30.00	40.00	0.60	0.25	1.50	2.50	40.00
SMD1206-005/60N	0.05	0.15	60.00	10.00	0.60	0.25	1.50	2.50	40.00
SMD1206-010/30N	0.10	0.25	30.00	40.00	0.60	0.50	1.50	1.40	15.00
SMD1206-010/60N	0.10	0.25	60.00	10.00	0.60	0.50	1.50	1.40	15.00
SMD1206-012/30N	0.12	0.29	30.00	100.00	0.60	1.00	0.20	1.35	8.50
SMD1206-012/48N	0.12	0.29	48.00	100.00	0.60	1.00	0.20	1.40	6.50
SMD1206-012/60N	0.12	0.29	60.00	10.00	0.60	1.00	0.20	1.35	8.50
SMD1206-016/48N	0.16	0.45	48.00	10.00	0.60	1.00	0.30	1.10	5.00
SMD1206-020/24N	0.20	0.40	24.00	100.00	0.60	8.00	0.10	0.50	2.60
SMD1206-020/30N	0.20	0.40	30.00	100.00	0.60	8.00	0.10	0.50	2.60
SMD1206-025/16N	0.25	0.50	16.00	100.00	0.60	8.00	0.08	0.40	2.40
SMD1206-025/24N	0.25	0.50	24.00	100.00	0.60	8.00	0.08	0.40	2.40
SMD1206-025/30N	0.25	0.50	30.00	100.00	0.60	8.00	0.08	0.40	2.40
SMD1206-025/48N	0.25	0.50	48.00	40.00	0.60	8.00	0.08	0.40	2.70
SMD1206-035/16N	0.35	0.70	16.00	100.00	0.60	8.00	0.10	0.30	1.20
SMD1206-035/30N	0.35	0.70	30.00	100.00	0.60	8.00	0.10	0.30	1.40
SMD1206-035/30SN	0.35	0.70	30.00	100.00	0.60	8.00	0.10	0.30	1.20
SMD1206-050/6N	0.50	1.00	6.00	100.00	0.60	8.00	0.10	0.15	0.75
SMD1206-050/8N	0.50	1.00	8.00	100.00	0.60	8.00	0.10	0.15	0.75
SMD1206-050/16N	0.50	1.00	16.00	100.00	0.60	8.00	0.10	0.15	0.75
SMD1206-050/24N	0.50	1.00	24.00	100.00	0.60	8.00	0.10	0.15	1.00
SMD1206-050/30N	0.50	1.00	30.00	100.00	0.60	8.00	0.10	0.15	1.00
SMD1206-075/8N	0.75	1.50	8.00	100.00	0.60	8.00	0.20	0.09	0.40
SMD1206-075/13.2N	0.75	1.50	13.20	100.00	0.60	8.00	0.20	0.09	0.40
SMD1206-075/16N	0.75	1.50	16.00	100.00	0.60	8.00	0.20	0.09	0.50
SMD1206-075/24N	0.75	1.50	24.00	100.00	0.60	8.00	0.20	0.09	0.50
SMD1206-075/30N	0.75	1.50	30.00	100.00	0.60	8.00	0.20	0.09	0.50
SMD1206-100/6N	1.00	2.00	6.00	100.00	0.80	8.00	0.10	0.04	0.21
SMD1206-100/8N	1.00	2.00	8.00	100.00	0.80	8.00	0.10	0.04	0.21
SMD1206-100/12N	1.00	2.00	12.00	100.00	0.80	8.00	0.10	0.04	0.25
SMD1206-100/16N	1.00	2.00	16.00	100.00	0.80	8.00	0.10	0.04	0.25
SMD1206-100/24N	1.00	2.00	24.00	40.00	0.80	8.00	0.10	0.04	0.27
SMD1206-110/6N	1.10	2.20	6.00	100.00	0.80	8.00	0.10	0.04	0.21
SMD1206-110/8N	1.10	2.20	8.00	100.00	0.80	8.00	0.10	0.04	0.21
SMD1206-110/12N	1.10	2.20	12.00	100.00	0.80	8.00	0.10	0.04	0.25
SMD1206-110/16N	1.10	2.20	16.00	100.00	0.80	8.00	0.10	0.04	0.25
SMD1206-110/24N	1.10	2.20	24.00	40.00	0.80	8.00	0.10	0.04	0.27
SMD1206-125/6N	1.25	2.50	6.00	100.00	0.80	8.00	0.50	0.035	0.16
SMD1206-125/8N	1.25	2.50	8.00	100.00	0.80	8.00	0.50	0.035	0.16

SMD1206-150/6N	1.50	3.00	6.00	100.00	0.80	8.00	0.30	0.03	0.15
SMD1206-150/8N	1.50	3.00	8.00	100.00	0.80	8.00	0.30	0.03	0.15
SMD1206-150/12N	1.50	3.00	12.00	100.00	0.80	8.00	0.30	0.03	0.15
SMD1206-150/16N	1.50	3.00	16.00	100.00	0.80	8.00	0.30	0.03	0.15
SMD1206-175/6N	1.75	3.50	6.00	100.00	0.80	8.00	0.50	0.02	0.09
SMD1206-200/6N	2.00	4.00	6.00	100.00	0.80	8.00	0.50	0.018	0.085
SMD1206-200/10N	2.00	4.00	10.00	40.00	0.80	8.00	0.50	0.018	0.100
SMD1206-200/12N	2.00	4.00	12.00	40.00	0.80	8.00	0.50	0.018	0.100

I-hold: Holding Current: maximum current at which the device will not trip in 25°C still air.

I-trip: Tripping Current: minimum current at which the device will trip in 25°C still air.

Vmax: Maximum voltage device can withstand without damage at rated current(I<sub>max</sub>).

I<sub>max</sub>: Maximum fault current device can withstand without damage at rated voltage(V<sub>max</sub>).

P<sub>d typ</sub>: Typical power dissipated from device when in the tripped state at 25°C still air.

R<sub>0 min</sub>: Minimum resistance of device in initial (un-soldered) state.

R<sub>1 max</sub>: Maximum resistance of device at 25°C measured one hour after tripping or reflow soldering of 260°C for 20 sec.

## »Environmental Specifications

Operating Temperature	-40 °C to +85 °C
Maximum Device Surface Temperature in Tripped State	125°C
Passive Aging	+85 °C, 1000 hours ; ±5 % typical resistance change
Humidity Aging	+85 °C, 85 % R.H. 1000 hours; ±5 % typical resistance change
Thermal Shock	MIL-STD-202, Method 107; +85 °C to -40 °C, 20 times; -30 % typical resistance change
Solvent Resistance	MIL-STD-202, Method 215 ; No change
Vibration	MIL-STD-883, Method 2007, Condition A; No change
Moisture Sensivity Level	Level 1, J-STD-020
Storage Conditions	+40 °C Max. 70% RH Max. Packed in original packaging.

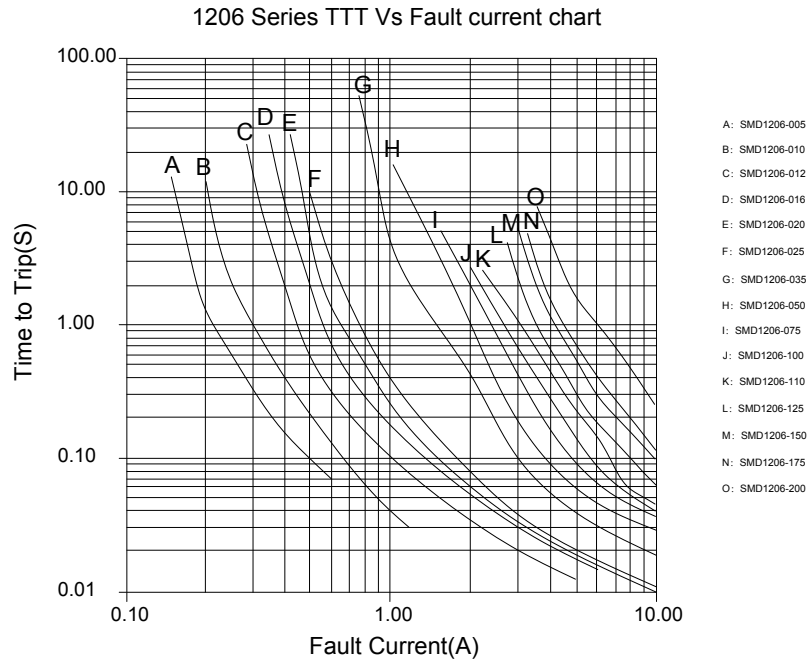
## »Test Procedures And Requirements

No.	Test	Test Conditions	Accept/Reject Criteria
1	R <sub>0 min</sub>	Resistance measurement at 25°C	$R_{0min} \leq R \leq R_{1max}$
2	R <sub>1 max</sub>	Resistance measurement one hour after post trip	$R_{0min} \leq R \leq R_{1max}$
3	I-hold	Hold rated current 1800 second without trip, @ 25°C	No trip
4	I-trip	Device must trip within 900 second under rated current, @25°C	Trip
5	Max. time to trip	At specified current, 25°C	$T \leq \text{max. time to trip (seconds)}$
6	Trip Cycle Life	V <sub>max</sub> , I <sub>max</sub> , 100 cycles	No arcing or burning
7	Trip Endurance	V <sub>max</sub> , I <sub>max</sub> 24 hours	No arcing or burning
8	Solderability	ANSI/J-STD-002	95 % min. coverage

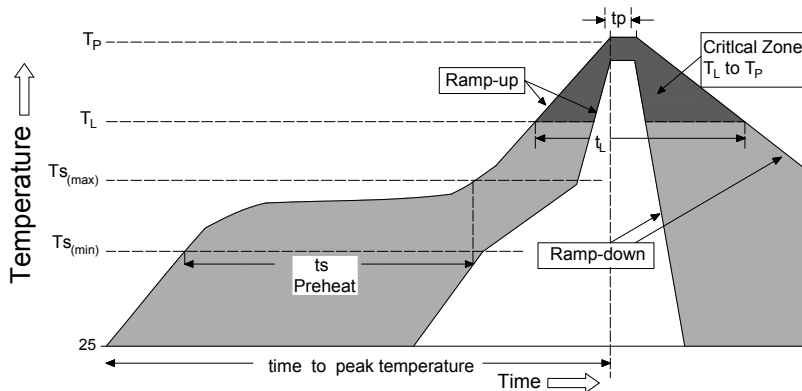
»Thermal Derating Chart Recommended Hold Current(A) at Ambient Temperature(°C)

Model	Ambient Operating Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD1206-005/30N	0.076	0.068	0.060	0.050	0.043	0.039	0.034	0.030	0.023
SMD1206-005/60N	0.076	0.068	0.060	0.050	0.043	0.039	0.034	0.030	0.023
SMD1206-010/30N	0.156	0.139	0.120	0.100	0.083	0.074	0.065	0.056	0.042
SMD1206-010/60N	0.156	0.139	0.120	0.100	0.083	0.074	0.065	0.056	0.042
SMD1206-012/30N	0.18	0.16	0.14	0.12	0.10	0.09	0.08	0.07	0.05
SMD1206-012/48N	0.18	0.16	0.14	0.12	0.10	0.09	0.08	0.07	0.05
SMD1206-012/60N	0.18	0.16	0.14	0.12	0.10	0.09	0.08	0.07	0.05
SMD1206-016/48N	0.22	0.20	0.18	0.16	0.14	0.13	0.12	0.11	0.09
SMD1206-020/24N	0.28	0.25	0.23	0.20	0.17	0.15	0.14	0.12	0.09
SMD1206-020/30N	0.28	0.25	0.23	0.20	0.17	0.15	0.14	0.12	0.09
SMD1206-025/16N	0.37	0.33	0.29	0.25	0.22	0.2	0.17	0.15	0.12
SMD1206-025/24N	0.37	0.33	0.29	0.25	0.22	0.2	0.17	0.15	0.12
SMD1206-025/30N	0.37	0.33	0.29	0.25	0.22	0.2	0.17	0.15	0.12
SMD1206-025/48N	0.37	0.33	0.29	0.25	0.22	0.2	0.17	0.15	0.12
SMD1206-035/16N	0.50	0.45	0.40	0.35	0.30	0.27	0.24	0.21	0.15
SMD1206-035/30N	0.50	0.45	0.40	0.35	0.30	0.27	0.24	0.21	0.15
SMD1206-035/30SN	0.50	0.45	0.40	0.35	0.30	0.27	0.24	0.21	0.15
SMD1206-050/6N	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25
SMD1206-050/8N	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25
SMD1206-050/16N	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25
SMD1206-050/24N	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25
SMD1206-050/30N	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25
SMD1206-075/8N	1.14	1.01	0.88	0.75	0.65	0.59	0.54	0.49	0.41
SMD1206-075/13.2N	1.14	1.01	0.88	0.75	0.65	0.59	0.54	0.49	0.41
SMD1206-075/16N	1.14	1.01	0.88	0.75	0.65	0.59	0.54	0.49	0.41
SMD1206-075/24N	1.14	1.01	0.88	0.75	0.65	0.59	0.54	0.49	0.41
SMD1206-075/30N	1.14	1.01	0.88	0.75	0.65	0.59	0.54	0.49	0.41
SMD1206-100/6N	1.49	1.33	1.18	1.00	0.84	0.75	0.73	0.59	0.47
SMD1206-100/8N	1.49	1.33	1.18	1.00	0.84	0.75	0.73	0.59	0.47
SMD1206-100/12N	1.49	1.33	1.18	1.00	0.84	0.75	0.73	0.59	0.47
SMD1206-100/16N	1.49	1.33	1.18	1.00	0.84	0.75	0.73	0.59	0.47
SMD1206-100/24N	1.49	1.33	1.18	1.00	0.84	0.75	0.73	0.59	0.47
SMD1206-110/6N	1.64	1.46	1.30	1.10	0.92	0.83	0.80	0.65	0.52
SMD1206-110/8N	1.64	1.46	1.30	1.10	0.92	0.83	0.80	0.65	0.52
SMD1206-110/12N	1.64	1.46	1.30	1.10	0.92	0.83	0.80	0.65	0.52
SMD1206-110/16N	1.64	1.46	1.30	1.10	0.92	0.83	0.80	0.65	0.52
SMD1206-110/24N	1.64	1.46	1.30	1.10	0.92	0.83	0.80	0.65	0.52
SMD1206-125/6N	1.83	1.65	1.43	1.25	1.09	0.96	0.87	0.76	0.60
SMD1206-125/8N	1.83	1.65	1.43	1.25	1.09	0.96	0.87	0.76	0.60
SMD1206-150/6N	2.20	1.99	1.77	1.50	1.34	1.23	1.10	1.01	0.84
SMD1206-150/8N	2.20	1.99	1.77	1.50	1.34	1.23	1.10	1.01	0.84
SMD1206-150/12N	2.20	1.99	1.77	1.50	1.34	1.23	1.10	1.01	0.84
SMD1206-150/16N	2.20	1.99	1.77	1.50	1.34	1.23	1.10	1.01	0.84
SMD1206-175/6N	2.50	2.25	2.00	1.75	1.55	1.45	1.35	1.25	1.10
SMD1206-200/6N	2.60	2.44	2.35	2.00	1.78	1.67	1.50	1.45	1.10
SMD1206-200/10N	2.60	2.44	2.35	2.00	1.78	1.67	1.50	1.45	1.10
SMD1206-200/12N	2.60	2.44	2.35	2.00	1.78	1.67	1.50	1.45	1.10

»Typical time to trip at 25°C



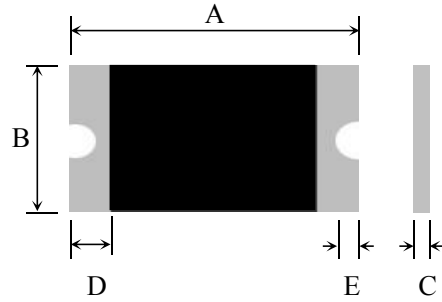
»Soldering Parameters



Profile Feature		Pb-Free Assembly
Average Ramp-Up Rate (TS(max) to TP)		3°C/second max
Pre Heat:	Temperature Min (TS(min))	150°C
	Temperature Max (TS(max))	200°C
	Time (Min to Max) (ts)	60 – 180 secs
Time Maintained Above:	Temperature (TL)	217°C
	Temperature (tL)	60 – 150 seconds
Peak / Classification Temperature (TP)		260 <sup>+0/-5</sup> °C
Time within 5°C of actual peak Temperature (tp)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (TP)		8 minutes Max.

- ◆All temperature refer to topside of the package, measured on the package body surface
- ◆If reflow temperature exceeds the recommended profile, devices may not meet the performance requirements
- ◆Recommended reflow methods: IR, vapor phase oven, hot air oven, N2 environment for lead
- ◆Recommended maximum paste thickness is 0.25mm (0.010inch)
- ◆Devices can be cleaned using standard industry methods and solvents

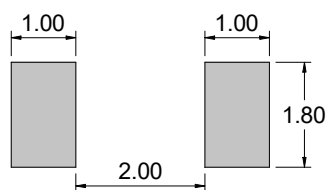
»Physical Dimensions(mm)



Model	A		B		C		D		E
	Min	Max	Min	Max	Min	Max	Min	Max	Min
SMD1206-005/30N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-005/60N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-010/30N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-010/60N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-012/30N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-012/48N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-012/60N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-016/48N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-020/24N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-020/30N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-025/16N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-025/24N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-025/30N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-025/48N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-035/16N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-035/30N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-035/30SN	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-050/6N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-050/8N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-050/16N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-050/24N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-050/30N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-075/8N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-075/13.2N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-075/16N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-075/24N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-075/30N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-100/6N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10

Model	A		B		C		D		E
	Min	Max	Min	Max	Min	Max	Min	Max	Min
SMD1206-100/8N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-100/12N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-100/16N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-100/24N	3.00	3.40	1.40	1.80	0.90	1.30	0.25	0.75	0.10
SMD1206-110/6N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-110/8N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-110/12N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-110/16N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-110/24N	3.00	3.40	1.40	1.80	0.90	1.30	0.25	0.75	0.10
SMD1206-125/6N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-125/8N	3.00	3.40	1.40	1.80	0.35	0.85	0.25	0.75	0.10
SMD1206-150/6N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-150/8N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-150/12N	3.00	3.40	1.40	1.80	0.90	1.30	0.25	0.75	0.10
SMD1206-150/16N	3.00	3.40	1.40	1.80	0.90	1.30	0.25	0.75	0.10
SMD1206-175/6N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-200/6N	3.00	3.40	1.40	1.80	0.65	1.15	0.25	0.75	0.10
SMD1206-200/10N	3.00	3.40	1.40	1.80	0.90	1.30	0.25	0.75	0.10
SMD1206-200/12N	3.00	3.40	1.40	1.80	0.90	1.30	0.25	0.75	0.10

»Recommended Pad Layout (mm)&Physical Specifications



Terminal Material	Tin-Plated Nickel-Copper (Solder Material: Matte Tin (Sn))
Lead Solderability	Meets EIA Specification RS186-9E, ANSI/J-STD-002 Category 3.

»Tape And Reel Specifications (mm)&Packaging quantity

TAPE SPECIFICATIONS: EIA-481-1 (mm)					
Item	SMD1206-020/24N	SMD1206-020/30N	SMD1206-005/30N	SMD1206-005/60N	SMD1206-100/24N
	SMD1206-025/16N	SMD1206-025/24N	SMD1206-010/30N	SMD1206-010/60N	SMD1206-110/24N
	SMD1206-025/30N	SMD1206-035/16N	SMD1206-012/30N	SMD1206-012/48N	SMD1206-150/12N
	SMD1206-035/30SN	SMD1206-050/6N	SMD1206-012/60N	SMD1206-016/48N	SMD1206-150/16N
	SMD1206-050/8N	SMD1206-050/16N	SMD1206-025/48N	SMD1206-035/30N	SMD1206-200/10N
	SMD1206-075/8N	SMD1206-075/13.2N	SMD1206-050/24N	SMD1206-050/30N	SMD1206-200/12N
	SMD1206-100/6N	SMD1206-100/8N	SMD1206-075/16N	SMD1206-075/24N	
	SMD1206-110/6N	SMD1206-110/8N	SMD1206-075/30N	SMD1206-100/12N	
	SMD1206-125/6N	SMD1206-125/8N	SMD1206-100/16N	SMD1206-110/12N	
		SMD1206-110/16N	SMD1206-150/6N		
		SMD1206-150/8N	SMD1206-175/6N		
		SMD1206-200/6N			
W	8.10±0.10		8.10±0.10		8.10±0.10
F	3.50±0.05		3.50±0.05		3.50±0.05
E1	1.75±0.10		1.75±0.10		1.75±0.10
D0	1.55±0.05		1.55±0.05		1.55±0.05
D1	1.00 min		1.00 min		1.00 min
P0	4.0±0.10		4.0±0.10		4.0±0.10
P1	4.0±0.10		4.0±0.10		4.0±0.10
P2	2.0±0.05		2.0±0.05		2.0±0.05
A0	1.90±0.10		2.00±0.10		2.00±0.10
B0	3.45±0.10		3.50±0.10		3.50±0.10
T	0.25±0.05		0.25±0.05		0.25±0.05
K0	0.85±0.10		1.05±0.10		1.30±0.10
Leader	390mm		390mm		390mm
Trailer	160mm		160mm		160mm
Q'ty	4,000pcs/Reel		3,500pcs/Reel		3,500pcs/Reel

REEL DIMENSIONS: EIA-481-1 (mm)	
C	Ø178±1.0
D	Ø60.2±0.5
W	9.0±1.5
H	11.0±0.5

