

Performance Specification

Model	Mark	V _{max} (V dc)	I _{max} (A)	I _{hold} @25°C (A)	I _{trip} @25°C (A)	P _d Typ. (W)	Maximum		Resistance	
							Time To Trip			
							Current	Time	R _{i min}	R _{1max}
							(A)	(Sec)	(Ω)	(Ω)
JSMD2920-030	JK030L	60.0	100	0.30	0.60	1.5	1.5	3.0	0.600	4.800
JSMD2920-050	JK050L	60.0	100	0.50	1.00	1.5	2.5	4.0	0.180	1.400
JSMD2920-075	JK075L	33.0	100	0.75	1.50	1.5	8.0	0.3	0.100	1.000
JSMD2920-100	JK100L	33.0	100	1.00	2.00	1.5	8.0	0.5	0.065	0.410
JSMD2920-100/60	JK100L	60.0	10	1.00	2.00	1.5	8.0	0.5	0.065	0.410
JSMD2920-125	JK125L	33.0	100	1.25	2.50	1.5	8.0	2.0	0.050	0.250
JSMD2920-150	JK150L	33.0	100	1.50	3.00	1.5	8.0	2.0	0.035	0.230
JSMD2920-185	JK185L	33.0	100	1.85	3.70	1.5	8.0	2.5	0.030	0.150
JSMD2920-200	JK200L	16.0	100	2.00	4.00	1.5	8.0	4.5	0.020	0.120
JSMD2920-200/24	JK200L	24.0	40	2.00	4.00	1.5	8.0	5.0	0.020	0.125
JSMD2920-200/33	JK200L	33.0	40	2.00	4.00	1.5	8.0	5.0	0.020	0.125
JSMD2920-250/16	JK250L	16.0	100	2.50	5.00	1.5	8.0	16.0	0.020	0.085
JSMD2920-260	JK260L	24.0	100	2.60	5.20	1.5	8.0	10.0	0.014	0.075
JSMD2920-300	JK300L	16.0	100	3.00	6.00	1.5	8.0	20.0	0.012	0.048
JSMD2920-300/24	JK300L	24.0	40	3.00	6.00	1.5	8.0	20.0	0.012	0.048
JSMD2920-300/33	JK300L	33.0	40	3.00	6.00	1.5	8.0	25.0	0.010	0.055
JSMD2920-400	JK400L	12.0	100	4.00	8.00	1.6	20.0	4.00	0.008	0.04
JSMD2920-400/16	JK400L	16.0	100	4.00	8.00	1.6	20.0	4.00	0.008	0.04
JSMD2920-400/24	JK400L	24.0	40	4.00	8.00	1.5	20.0	4.00	0.008	0.04
JSMD2920-500	JK500L	12.0	100	5.00	10.00	1.6	25.0	4.00	0.005	0.025
JSMD2920-50016	JK500L	16.0	100	5.00	10.00	1.6	25.0	4.00	0.005	0.025

V_{max} = Maximum operating voltage device can withstand without damage at rated current (I_{max}).

I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max}).

I_{hold} = Hold Current. Maximum current device will not trip in 25°C still air.

I_{trip} = Trip Current. Minimum current at which the device will always trip in 25°C still air.

P_d = Power dissipation when device is in the tripped state in 25°C still air environment at rated voltage.

R_{i min/max} = Minimum/Maximum device resistance prior to tripping at 25°C.



R_{1 max} = Maximum device resistance is measured one hour post reflow.

CAUTION : Operation beyond the specified ratings may result in damage and possible arcing and flame.

Environmental Specifications

Test	Conditions	Resistance change
Passive aging	+85°C, 1000 hrs.	±5% typical
Humidity aging	+85°C, 85% R.H. , 168 hours	±5% typical
Thermal shock	+85°C to -40°C, 20 times	±33% typical
Resistance to solvent	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-202, Method 201	No change
Ambient operating conditions : - 40 °C to +85 °C		
Maximum surface temperature of the device in the tripped state is 125 °C		

Agency Approval and Environmental Compliance

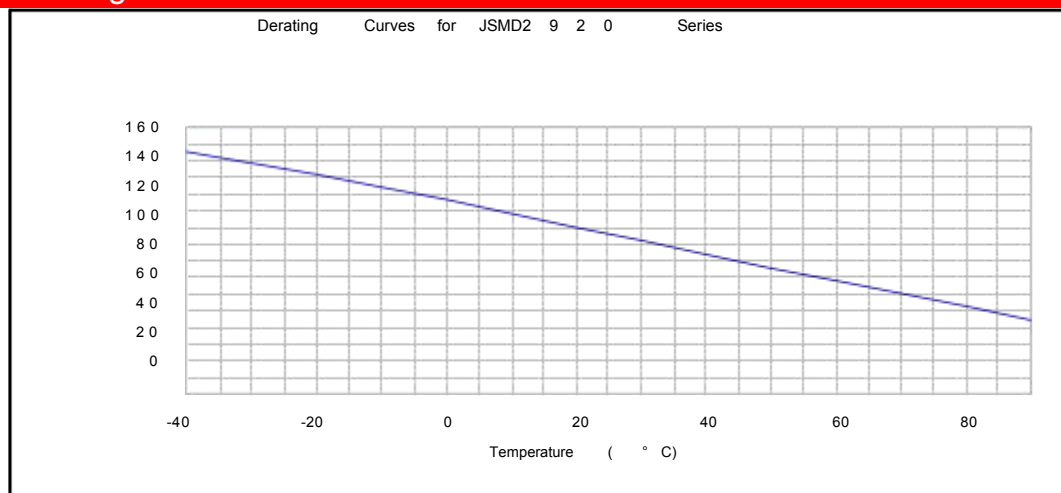
Agency	File Number	Regulation	Standard
UL	pending		2002/95/EC
TUV	pending		EN14582

Thermal Derating Chart

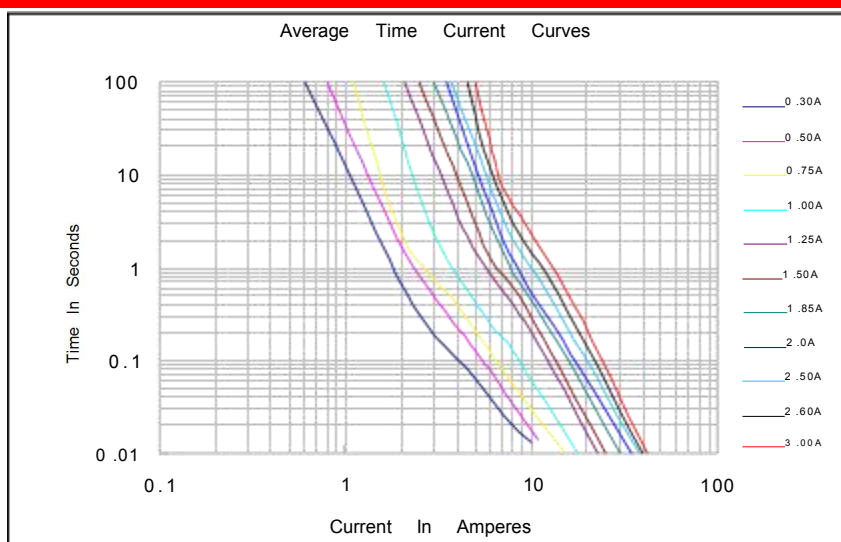
Recommended Hold Current(A) at Ambient Temperature(°C)

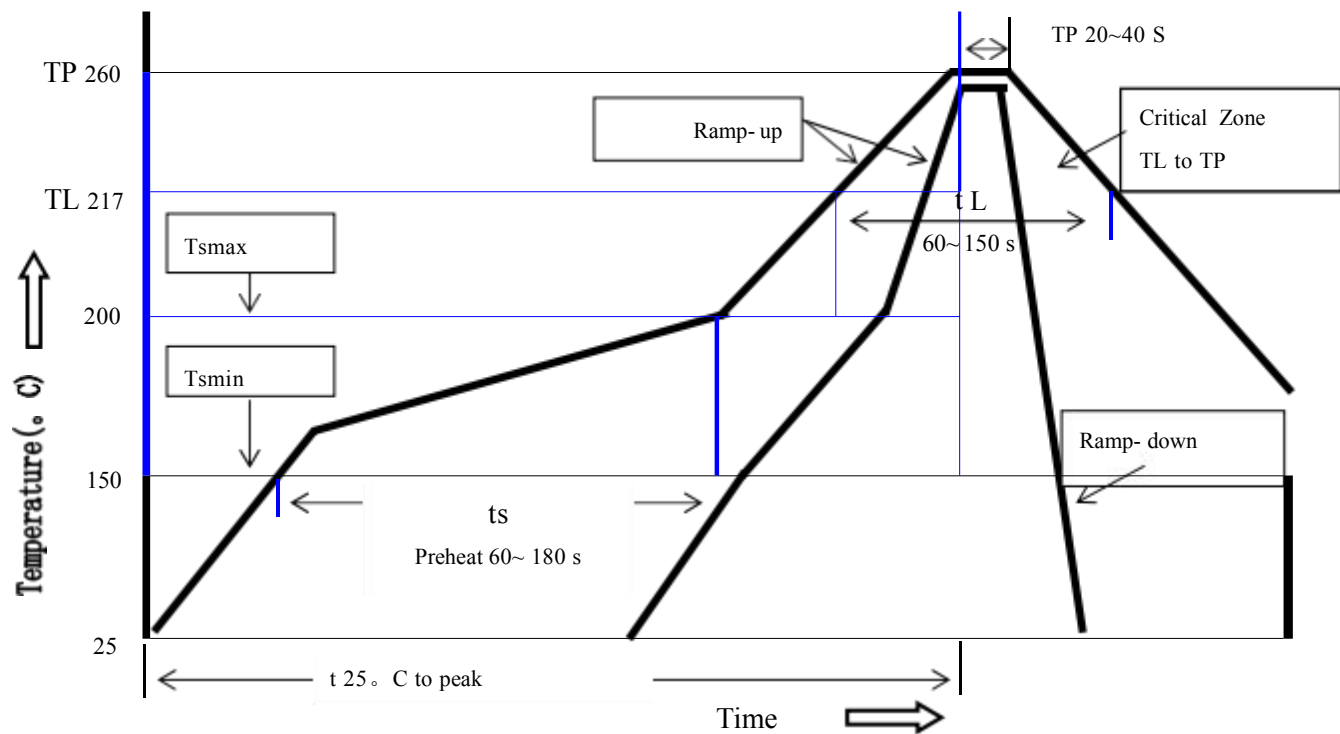
Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
JSMD2920-030	0.45	0.40	0.35	0.30	0.25	0.23	0.20	0.17	0.14
JSMD2920-050	0.76	0.67	0.59	0.50	0.42	0.38	0.33	0.29	0.23
JSMD2920-075	1.13	1.01	0.88	0.75	0.62	0.56	0.50	0.44	0.34
JSMD2920-100	1.66	1.47	1.29	1.00	0.91	0.83	0.73	0.64	0.50
JSMD2920-100/60	1.66	1.47	1.29	1.00	0.91	0.83	0.73	0.64	0.50
JSMD2920-125	1.89	1.68	1.46	1.25	1.04	0.94	0.83	0.73	0.56
JSMD2920-150	2.27	2.01	1.76	1.50	1.25	1.13	1.00	0.87	0.74
JSMD2920-185	2.80	2.47	2.17	1.85	1.54	1.39	1.22	1.07	0.85
JSMD2920-200	3.02	2.68	2.34	2.00	1.66	1.50	1.32	1.16	0.90
JSMD2920-200/16	3.14	2.77	2.42	2.00	1.73	1.56	1.38	1.20	0.98
JSMD2920-200/33	3.14	2.77	2.42	2.00	1.73	1.56	1.38	1.20	0.98
JSMD2920-250/16	3.78	3.35	2.93	2.50	2.08	1.88	1.65	1.45	1.13
JSMD2920-260	3.64	3.25	2.91	2.60	2.26	2.08	1.95	1.74	1.13
JSMD2920-300	4.53	4.02	3.51	3.00	2.52	2.26	1.99	1.75	1.34
JSMD2920-300/33	4.20	3.85	3.44	3.00	2.69	2.50	2.31	2.12	1.34
JSMD2920-400	5.60	5.13	4.59	4.00	3.59	3.33	3.08	2.83	1.83
JSMD2920-400/24	6.05	5.35	4.70	4.00	3.35	3.00	2.65	2.35	1.80
JSMD2920-500	7.00	6.42	5.73	5.00	4.48	4.17	3.85	3.53	3.05

Thermal Derating Curve



Average Time- Current Curve





Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate(Ts max to T p)	3 C/second max.
Preheat	
- Temperature Min(Ts min)	150 C
- Temperature Max(Ts max)	200 C
- Time(Ts min to Ts max)	60~ 180 seconds
Time maintained above:	
- Temperature(TL)	217 C
- Time(tL)	60~ 150 seconds
Peak Temperature(Tp)	260 C
Ramp-Down Rate	6 C/second max.
Time 25 C to Peak Temperature	8 minutes max
Storage Condition	0C~35C, ≤70% RH

Recommended reflow methods: IR, vapor phase oven, hot air oven, N2 environment for lead-free

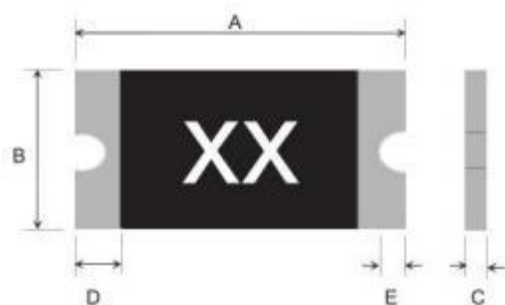
Recommended maximum paste thickness is 0.25mm

Devices can be cleaned using standard industry methods and solvents.

Note 1: All temperature refer to topside of the package, measured on the package body surface.

Note 2: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Physical Dimensions(mm.)



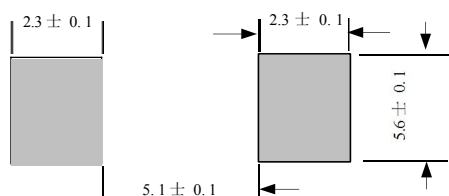
Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
JSMD2920-030	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.25
JSMD2920-050	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.25
JSMD2920-075	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.25
JSMD2920-100	6.73	7.98	4.80	5.44	0.40	1.00	0.30	0.25
JSMD2920-100/60	6.73	7.98	4.80	5.44	0.80	1.30	0.30	0.25
JSMD2920-125	6.73	7.98	4.80	5.44	0.40	0.90	0.30	0.25
JSMD2920-150	6.73	7.98	4.80	5.44	0.40	0.90	0.30	0.25
JSMD2920-185	6.73	7.98	4.80	5.44	0.30	1.30	0.30	0.25
JSMD2920-200	6.73	7.98	4.80	5.44	0.30	0.90	0.30	0.25
JSMD2920-200/ 16	6.73	7.98	4.80	5.44	0.80	1.30	0.30	0.25
JSMD2920-200/33	6.73	7.98	4.80	5.44	0.80	1.30	0.30	0.25
JSMD2920-250/16	6.73	7.98	4.80	5.44	0.30	0.90	0.30	0.25
JSMD2920-260	6.73	7.98	4.80	5.44	0.30	0.90	0.30	0.25
JSMD2920-300	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.25
JSMD2920-300/24	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.25
JSMD2920-300/33	6.73	7.98	4.80	5.44	1.00	1.50	0.30	0.25
JSMD2920-400/ 12	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.15
JSMD2920-400	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.15
JSMD2920-400/24	6.73	7.98	4.80	5.44	1.00	1.50	0.30	0.25
JSMD2920-500/ 12	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.15
JSMD2920-500	6.73	7.98	4.80	5.44	0.60	1.30	0.30	0.15

Termination Pad Characteristics

Terminal pad materials: Tin-plated Nickel- Copper

Terminal pad solder ability: Meets EIA specification RS186-9E and ANSI/J-STD-002 Category 3.

Recommended Pad Layout (mm.)



Packaging Quantity

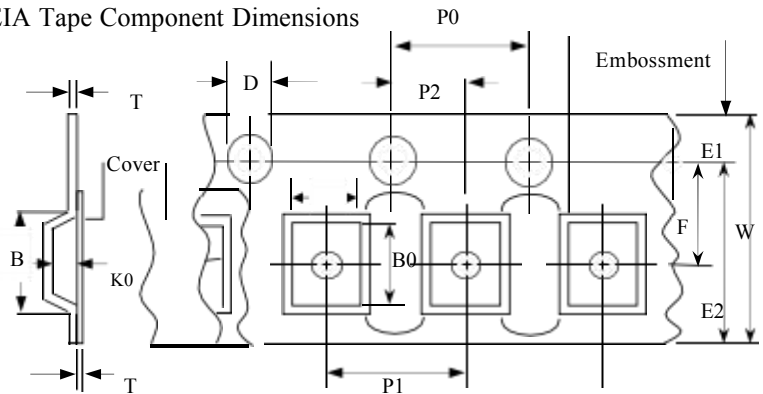
Part Number	Quantity
2920 Series	1,500 pcs/reel

Tape & reel packaging per EIA481-1

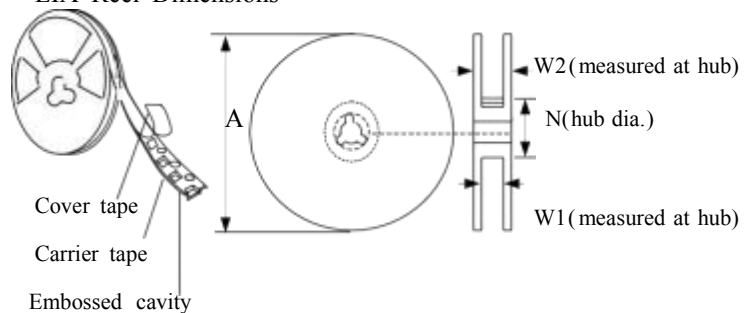
Tape And Reel Specifications (mm)

Governing	
Specifications	EIA 481-2
W	16.00 ± 0.3
P0	4.00 ± 0.10
P1	8.00 ± 0.10
P2	2.00 ± 0.05
A0	5.70 ± 0.10
B0	8.00 ± 0.10
B1max.	12.10
D0	1.50 + 0.1, -0
F	7.50 ± 0.05
E1	1.75 ± 0.10
E2min.	14.25
T	0.60
T1max.	0.10
K0	0.80 ± 0.1
Leader min.	390
Trailer min.	160
Reel Dimensions	
A max.	178
N min.	60
W1	16.40 ± 0.5
W2	22.40

EIA Tape Component Dimensions



EIA Reel Dimensions

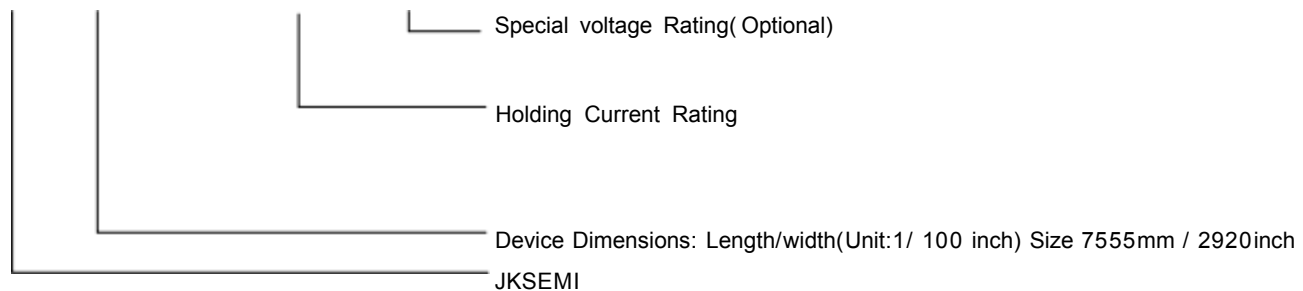


Storage And Handling

- Storage conditions: 35°C max, 70% R.H.
- Devices may not meet specified performance if storage conditions are exceeded.

Part Number System

J SMD2920 - □□□ / □□□



Cross Reference

JKSEMI	Cross Reference				
	TYCO/ Raychem	Littelfuse	Bourns / Multifuse®	Polytronics / EVERFUSE®	SEA- LAND
JSMD2920-030	SMD030F	2920L030	-	SMD2920P030TF	SMD030L
JSMD2920-050	SMD050F	2920L050	-	SMD2920P050TF	SMD050L
JSMD2920-075	SMD075F	2920L075	-	SMD2920P075TF	SMD075L
JSMD2920- 100	SMD100F	2920L100	-	SMD2920P100TF	SMD100L
JSMD2920- 125	SMD125F	2920L125	-	SMD2920P125TF	SMD125L
JSMD2920- 150	-	2920L150	-	SMD2920P150TF	SMD150L
JSMD2920- 185	-	2920L185	-	SMD2920P185TF	SMD185L
JSMD2920-200	-	2920L200	-	-	SMD200L
JSMD2920-250/ 16	-	-	-	SMD2920P250TF	-
JSMD2920-260	SMD260F	2920L260	MF-LSMF260X	SMD2920P260TF	SMD260L
JSMD2920-300	SMD300F	2920L300	MF-LSMF300X	-	SMD300L
JSMD2920-300/ 16	-	-	-	-	-

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