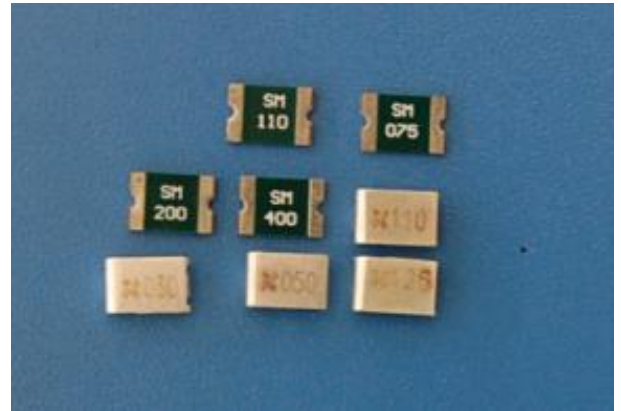




## Features

- Small size of 7555mm/2920mils
- Fast tripping resettable circuit protection
- Surface mount packaging for automated assembly
- Agency recognition: UL、TUV



## Product Dimensions

Part number	A	B	C	D	E	Figures For Dimension
	Max.	Max.	Max.	Min.	Min.	
DW-SM030	7.98	3.18	5.44	0.50	-	S3
DW-SM050	7.98	3.18	5.44	0.50	-	S3
DW-SM075	7.98	3.18	5.44	0.50	-	S3
DW-SM110	7.98	3.18	5.44	0.50	-	S3
DW-SM125	7.98	3.18	5.44	0.50	-	S3
DW-SM260	7.98	3.18	5.44	0.50	-	S3
DW-SM300	7.98	3.18	5.44	0.50	-	S3
DW-SM030C	7.98	5.44	1.25	0.80	0.30	S2
DW-SM050C	7.98	5.44	1.25	0.80	0.30	S2
DW-SM075C	7.98	5.44	1.25	0.80	0.30	S2
DW-SM110C	7.98	5.44	1.25	0.80	0.30	S2
DW-SM125C	7.98	5.44	1.25	0.80	0.30	S2
DW-SM130C	7.98	5.44	1.25	0.80	0.30	S2
DW-SM150C	7.98	5.44	1.25	0.80	0.30	S2
DW-SM185C	7.98	5.44	1.25	0.80	0.30	S2
DW-SM185C/33	7.98	5.44	1.25	0.80	0.30	S2
DW-SM200C	7.98	5.44	1.50	0.80	0.30	S2
DW-SM200C/24	7.98	5.44	1.50	0.80	0.30	S2
DW-SM250C	7.98	5.44	1.50	0.80	0.30	S2
DW-SM260C	7.98	5.44	1.50	0.80	0.30	S2
DW-SM260C/24	7.98	5.44	1.50	0.80	0.30	S2
DW-SM300C	7.98	5.44	1.50	0.80	0.30	S2
DW-SM300C/16	7.98	5.44	1.50	0.80	0.30	S2
DW-SM300C/24	7.98	5.44	1.50	0.80	0.30	S2



Part number	A	B	C	D	E	Figures For Dimension
	Max.	Max.	Max.	Min.	Min.	
DW-SM400C/16	7.98	5.44	2.00	0.80	0.30	S2
DW-SML400/16	7.98	5.44	1.00	0.80	0.30	S2
DW-SML400/24	7.98	5.44	1.00	0.80	0.30	S2
DW-SML450/16	7.98	5.44	1.00	0.80	0.30	S2
DW-SML450/24	7.98	5.44	1.00	0.80	0.30	S2
DW-SML500	7.98	5.44	0.80	0.60	0.10	S2
DW-SML500/16	7.98	5.44	1.50	0.60	0.10	S2
DW-SML500/24	7.98	5.44	1.50	0.60	0.10	S2
DW-SML550	7.98	5.44	0.80	0.60	0.10	S2
DW-SML550/16	7.98	5.44	1.50	0.60	0.10	S2
DW-SML550/24	7.98	5.44	1.50	0.60	0.10	S2
DW-SML600	7.98	5.44	0.80	0.60	0.10	S2
DW-SML600/16	7.98	5.44	1.50	0.60	0.10	S2
DW-SML600/24	7.98	5.44	1.50	0.60	0.10	S2
DW-SML650	7.98	5.44	0.80	0.60	0.10	S2
DW-SML650/16	7.98	5.44	1.50	0.60	0.10	S2
DW-SML650/24	7.98	5.44	1.50	0.60	0.10	S2
DW-SML700/16	7.98	5.44	1.50	0.60	0.10	S2
DW-SML700/24	7.98	5.44	1.50	0.60	0.10	S2

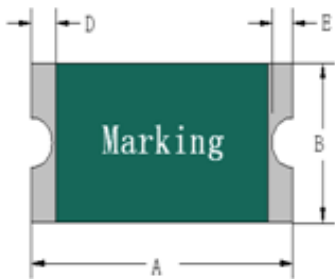


Figure S2

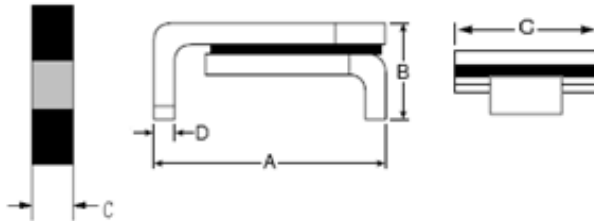


Figure S3

Electrical Characteristics at 25°C

Part number	I <sub>H</sub>	I <sub>T</sub>	V <sub>max</sub>	I <sub>max</sub>	Max.Time-to-trip	Pd <sub>max</sub>	R <sub>min</sub>	R <sub>1max</sub>	Figures For Dimension	
	(A)	(A)	(V)	(A)	(A)	(S)	(W)	(Ω)		(Ω)
DW-SM030	0.30	0.60	60	10	1.50	3.00	1.9	0.700	4.800	S3
DW-SM050	0.50	1.00	60	10	2.50	4.00	1.9	0.350	1.400	S3
DW-SM075	0.75	1.50	30	40	8.00	0.30	1.9	0.290	1.000	S3
DW-SM110	1.10	2.20	33	40	8.00	0.50	1.9	0.100	0.480	S3
DW-SM125	1.25	2.50	15	40	8.00	2.00	1.6	0.070	0.250	S3
DW-SM260	2.60	5.20	6	40	8.00	20.00	1.9	0.025	0.075	S3
DW-SM300	3.00	6.00	6	40	8.00	35.00	1.9	0.015	0.048	S3
DW-SM030C	0.30	0.60	60	10	1.50	3.00	1.9	0.700	4.800	S2



Part number	$I_H$	$I_T$	$V_{max}$	$I_{max}$	Max.Time-to-trip	$Pd_{max}$	$R_{min}$	$R_{I_{max}}$	Figures For Dimension	
	(A)	(A)	(V)	(A)	(A)	(S)	(W)	( $\Omega$ )		( $\Omega$ )
DW-SM050C	0.50	1.00	60	10	2.50	4.00	1.9	0.350	1.400	S2
DW-SM075C	0.75	1.50	30	40	8.00	0.30	1.9	0.290	1.000	S2
DW-SM110C	1.10	2.20	33	40	8.00	0.50	1.9	0.100	0.480	S2
DW-SM125C	1.25	2.50	15	40	8.00	2.00	1.6	0.070	0.250	S2
DW-SM130C	1.30	2.60	33	40	8.00	4.00	2.1	0.080	0.280	S2
DW-SM150C	1.50	3.00	33	40	8.00	5.00	2.1	0.060	0.250	S2
DW-SM185C	1.85	3.70	15	40	8.00	5.00	2.1	0.045	0.165	S2
DW-SM185C/33	1.85	3.70	33	40	8.00	5.00	2.1	0.045	0.165	S2
DW-SM200C	2.00	4.00	15	40	8.00	12.00	2.1	0.045	0.125	S2
DW-SM200C/24	2.00	4.00	24	40	8.00	12.00	2.1	0.045	0.125	S2
DW-SM250C	2.50	5.00	15	40	8.00	25.00	1.9	0.025	0.085	S2
DW-SM260C	2.60	5.20	6	40	8.00	20.00	1.9	0.025	0.075	S2
DW-SM260C/24	2.60	5.20	24	40	8.00	20.00	1.9	0.025	0.075	S2
DW-SM300C	3.00	6.00	6	40	8.00	35.00	1.9	0.015	0.048	S2
DW-SM300C/16	3.00	6.00	16	40	8.00	35.00	1.9	0.015	0.048	S2
DW-SM300C/24	3.00	6.00	24	40	8.00	35.00	1.9	0.015	0.048	S2
DW-SM400C/16	4.00	8.00	16	40	8.00	40.00	1.9	0.012	0.040	S2
DW-SML400/16	4.00	8.00	16	50	20.00	5.00	1.5	0.001	0.014	S2
DW-SML400/24	4.00	8.00	24	50	20.00	5.00	1.5	0.001	0.014	S2
DW-SML450/16	4.50	9.00	16	50	22.50	5.00	1.5	0.001	0.013	S2
DW-SML450/24	4.50	9.00	24	50	22.50	5.00	1.5	0.001	0.013	S2
DW-SML500	5.00	10.00	6	50	25.00	5.00	1.5	0.001	0.012	S2
DW-SML500/16	5.00	10.00	16	50	25.00	5.00	1.5	0.001	0.012	S2
DW-SML500/24	5.00	10.00	24	50	25.00	5.00	1.5	0.001	0.012	S2
DW-SML550	5.50	11.00	6	50	27.50	5.00	1.5	0.001	0.011	S2
DW-SML550/16	5.50	11.00	16	50	27.50	5.00	1.5	0.001	0.011	S2
DW-SML550/24	5.50	11.00	24	50	27.50	5.00	1.5	0.001	0.011	S2
DW-SML600	6.00	12.00	6	50	30.00	5.00	1.5	0.001	0.010	S2
DW-SML600/16	6.00	12.00	16	50	30.00	5.00	1.5	0.001	0.010	S2
DW-SML600/24	6.00	12.00	24	50	30.00	5.00	1.5	0.001	0.010	S2
DW-SML650	6.50	13.00	6	50	32.50	5.00	1.5	0.001	0.009	S2
DW-SML650/16	6.50	13.00	16	50	32.50	5.00	1.5	0.001	0.009	S2
DW-SML650/24	6.50	13.00	24	50	32.50	5.00	1.5	0.001	0.009	S2
DW-SML700/16	7.00	14.00	16	50	35.00	5.00	1.5	0.001	0.008	S2
DW-SML700/24	7.00	14.00	24	50	35.00	5.00	1.5	0.001	0.008	S2



$I_H$ =Hold current: maximum current at which the device will not trip at 25°C still air.

$I_T$ =Trip current: minimum current at which the device will always trip at 25°C still air.

$V_{max}$ =Maximum voltage device can withstand without damage at rated current.

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

Max. Time-to-trip =Maximum time to trip(s) at assigned current.

$P_{dtyp}$ =Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

$R_{min}$ =Minimum device resistance at 25°C prior to tripping.

$R_{1max}$ =Maximum device resistance measured in the nontripped state 1 hour post reflow.

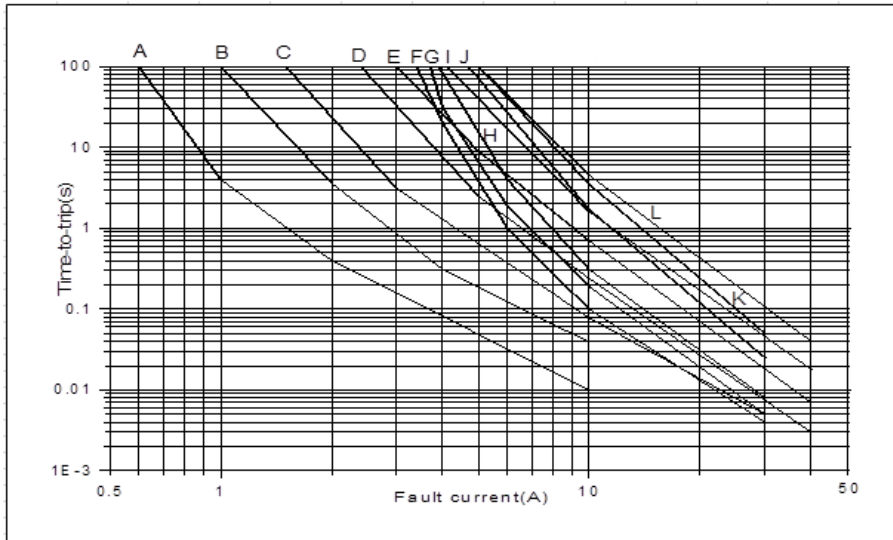
### Thermal Derating Chart-IH(A)

Part number	Maximum Ambient Temperature										Figures For Dimension
	-40°C	-20°C	0°C	20°C	25°C	40°C	50°C	60°C	70°C	85°C	
DW-SM030	0.48	0.41	0.35	0.32	0.30	0.25	0.23	0.19	0.15	0.10	S3
DW-SM050	0.80	0.71	0.59	0.52	0.50	0.44	0.38	0.32	0.26	0.19	S3
DW-SM075	1.21	1.05	0.89	0.78	0.75	0.64	0.56	0.49	0.41	0.28	S3
DW-SM110	1.75	1.54	1.32	1.15	1.10	0.96	0.83	0.73	0.61	0.42	S3
DW-SM125	1.99	1.75	1.51	1.30	1.25	1.07	0.94	0.83	0.69	0.46	S3
DW-SM260	4.12	3.62	3.18	2.64	2.60	2.23	1.91	1.75	1.45	1.02	S3
DW-SM300	4.74	4.21	3.63	3.05	3.00	2.59	2.25	2.02	1.65	1.18	S3
DW-SM030C	0.47	0.43	0.38	0.31	0.30	0.24	0.21	0.18	0.16	0.11	S2
DW-SM050C	0.81	0.73	0.63	0.52	0.50	0.44	0.36	0.33	0.26	0.21	S2
DW-SM075C	1.21	1.08	0.93	0.79	0.75	0.64	0.54	0.49	0.41	0.30	S2
DW-SM110C	1.76	1.57	1.36	1.15	1.10	0.96	0.80	0.72	0.61	0.43	S2
DW-SM125C	2.01	1.78	1.54	1.30	1.25	1.09	0.91	0.82	0.69	0.49	S2
DW-SM130C	2.06	1.81	1.59	1.35	1.30	1.13	0.93	0.86	0.72	0.51	S2
DW-SM150C	2.40	2.09	1.81	1.52	1.50	1.33	1.06	1.01	0.83	0.59	S2
DW-SM185C	2.95	2.58	2.28	1.87	1.85	1.64	1.34	1.24	1.03	0.72	S2
DW-SM185C/33	2.95	2.58	2.28	1.87	1.85	1.64	1.34	1.24	1.03	0.72	S2
DW-SM200C	3.18	2.80	2.45	2.03	2.00	1.76	1.45	1.32	1.11	0.79	S2
DW-SM200C/24	3.18	2.80	2.45	2.03	2.00	1.76	1.45	1.32	1.11	0.79	S2
DW-SM250C	3.98	3.51	3.06	2.53	2.50	2.19	1.82	1.68	1.40	0.95	S2
DW-SM260C	4.15	3.65	3.18	2.64	2.60	2.24	1.91	1.77	1.46	1.01	S2
DW-SM260C/24	4.15	3.65	3.18	2.64	2.60	2.24	1.91	1.77	1.46	1.01	S2
DW-SM300C	4.76	4.21	3.66	3.05	3.00	2.61	2.21	2.05	1.69	1.17	S2
DW-SM300C/16	4.76	4.21	3.66	3.05	3.00	2.61	2.21	2.05	1.69	1.17	S2
DW-SM300C/24	4.76	4.21	3.66	3.05	3.00	2.61	2.21	2.05	1.69	1.17	S2
DW-SM400C/16	6.35	5.63	4.86	4.05	4.00	3.46	2.95	2.72	2.24	1.53	S2
DW-SML400/16	6.35	5.63	4.86	4.10	4.00	3.55	3.00	2.90	2.50	1.95	S2
DW-SML400/24	6.35	5.63	4.86	4.10	4.00	3.55	3.00	2.90	2.50	1.95	S2
DW-SML450/16	6.90	6.10	5.47	4.62	4.50	3.95	3.53	3.20	2.80	2.05	S2
DW-SML450/24	6.90	6.10	5.47	4.62	4.50	3.95	3.53	3.20	2.80	2.05	S2
DW-SML500	8.09	7.14	6.19	5.23	5.00	4.28	3.81	3.33	2.86	2.14	S2
DW-SML500/16	8.09	7.14	6.19	5.23	5.00	4.28	3.81	3.33	2.86	2.14	S2



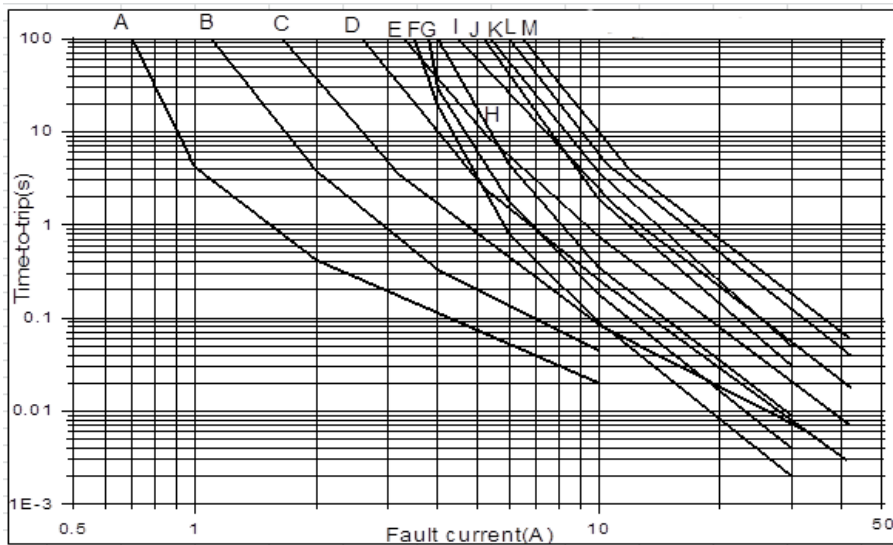
Part number	Maximum Ambient Temperature										Figures For Dimension
	-40°C	-20°C	0°C	20°C	25°C	40°C	50°C	60°C	70°C	85°C	
DW-SML500/24	8.09	7.14	6.19	5.23	5.00	4.28	3.81	3.33	2.86	2.14	S2
DW-SML550	8.90	7.86	6.81	5.76	5.50	4.71	4.19	3.67	3.14	2.36	S2
DW-SML550/16	8.90	7.86	6.81	5.76	5.50	4.71	4.19	3.67	3.14	2.36	S2
DW-SML550/24	8.90	7.86	6.81	5.76	5.50	4.71	4.19	3.67	3.14	2.36	S2
DW-SML600	9.71	8.57	7.43	6.28	6.00	5.14	4.57	4.00	3.43	2.57	S2
DW-SML600/16	9.71	8.57	7.43	6.28	6.00	5.14	4.57	4.00	3.43	2.57	S2
DW-SML600/24	9.71	8.57	7.43	6.28	6.00	5.14	4.57	4.00	3.43	2.57	S2
DW-SML650	10.52	9.28	8.05	6.80	6.50	5.57	4.95	4.33	3.72	2.78	S2
DW-SML650/16	10.52	9.28	8.05	6.80	6.50	5.57	4.95	4.33	3.72	2.78	S2
DW-SML650/24	10.52	9.28	8.05	6.80	6.50	5.57	4.95	4.33	3.72	2.78	S2
DW-SML700/16	11.32	9.96	8.70	7.25	7.00	6.00	5.30	5.00	4.20	3.00	S2
DW-SML700/24	11.32	9.96	8.70	7.25	7.00	6.00	5.30	5.00	4.20	3.00	S2

Typical Time-to-Trip Curves at 25°C



DW-SM Series

- A = DW-SM030
- B = DW-SM050
- C = DW-SM075
- D = DW-SM110
- E = DW-SM125
- F = DW-SM130
- G = DW-SM150
- H = DW-SM185
- I = DW-SM200
- J = DW-SM250
- K = DW-SM260
- L = DW-SM300

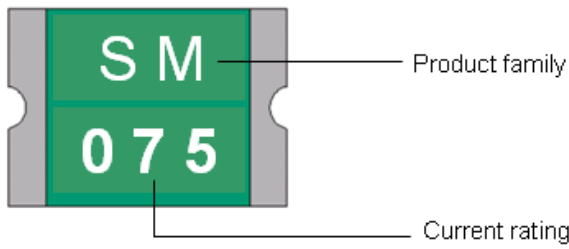


DW-SM Series

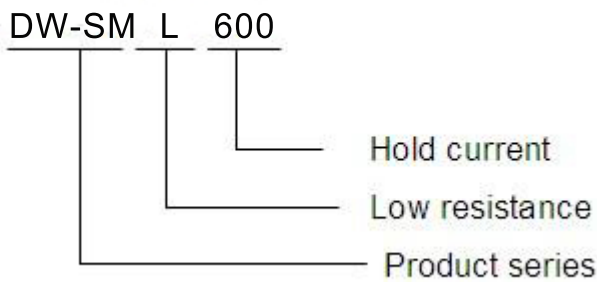
- A = DW-SM030C
- B = DW-SM050C
- C = DW-SM075C
- D = DW-SM110C
- E = DW-SM125C
- F = DW-SM130C
- G = DW-SM150C
- H = DW-SM185C, DW-SM185C/33
- I = DW-SM200C, DW-SM200C/24
- J = DW-SM250C
- K = DW-SM260C, DW-SM260C/24
- L = DW-SM300C, DW-SM300C/16  
DW-SM300C/24
- M = DW-SM400C/16



### Marking System



### Part Numbering System



### Test Procedures And Requirements

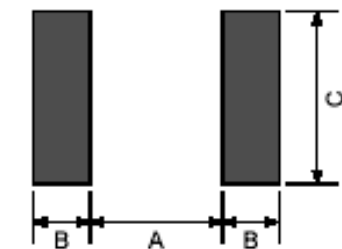
Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25°C	$R_{min} \leq R \leq R_{max}$
Time to Trip	Specified current, $V_{max}$ , 25°C	$T \leq$ maximum Time to Trip
Hold Current	60min, at $I_H$	No trip
Trip Cycle Life	$V_{max}$ , $I_{max}$ , 100cycles	No arcing or burning
Trip Endurance	$V_{max}$ , 2hours	No arcing or burning

### Packaging and Marking Information

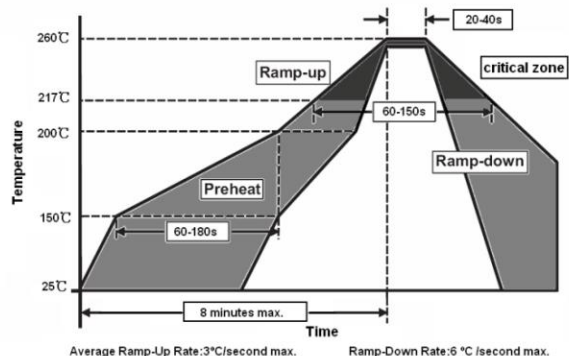
Part number	Tape & Reel Quantity	Tape spc code	Part Marking	Recommended Pad Layout Figures[mm(In.)]			Agency Recognition
				Dimension A(Nom.)	Dimension B(Nom.)	Dimension C(Nom.)	
DW-SM030	2000	2920A	⊗ 030	5.10	2.30	3.10	UL,TUV
DW-SM050	2000	2920A	⊗ 050	5.10	2.30	3.10	UL,TUV
DW-SM075	2000	2920A	⊗ 075	5.10	2.30	3.10	UL,TUV
DW-SM110	2000	2920A	⊗ 110	5.10	2.30	3.10	UL,TUV
DW-SM125	2000	2920A	⊗ 125	5.10	2.30	3.10	UL,TUV
DW-SM260	2000	2920A	⊗ 260	5.10	2.30	3.10	UL,TUV
DW-SM300	2000	2920A	⊗ 300	5.10	2.30	3.10	TUV
DW-SM030C	4000	2920B	SM030	4.60	2.00	5.30	UL,TUV
DW-SM050C	4000	2920B	SM050	4.60	2.00	5.30	UL,TUV
DW-SM075C	4000	2920B	SM075	4.60	2.00	5.30	UL,TUV
DW-SM110C	4000	2920B	SM110	4.60	2.00	5.30	UL,TUV



Part number	Tape & Reel Quantity	Tape spc code	Part Marking	Recommended Pad Layout Figures[mm(In.)]			Agency Recognition
				Dimension A(Nom.)	Dimension B(Nom.)	Dimension C(Nom.)	
DW-SM125C	4000	2920B	SM125	4.60	2.00	5.30	UL,TUV
DW-SM130C	4000	2920B	SM130	4.60	2.00	5.30	UL,TUV
DW-SM150C	4000	2920B	SM150	4.60	2.00	5.30	UL,TUV
DW-SM185C	4000	2920B	SM185	4.60	2.00	5.30	UL,TUV
DW-SM185C/33	4000	2920B	SM185	4.60	2.00	5.30	UL
DW-SM200C	4000	2920B	SM200	4.60	2.00	5.30	UL,TUV
DW-SM200C/24	6000	2920C	SM200	4.60	2.00	5.30	UL
DW-SM250C	4000	2920B	SM250	4.60	2.00	5.30	UL,TUV
DW-SM260C	4000	2920B	SM260	4.60	2.00	5.30	UL,TUV
DW-SM260C/24	4000	2920B	SM260	4.60	2.00	5.30	UL
DW-SM300C	4000	2920B	SM300	4.60	2.00	5.30	TUV
DW-SM300C/16	4000	2920B	SM300	4.60	2.00	5.30	UL
DW-SM300C/24	4000	2920B	SM300	4.60	2.00	5.30	UL
DW-SM400C/16	4000	2920B	SM400	4.60	2.00	5.30	UL
DW-SML400/16	6000	2920C	SM400-1	4.60	2.00	5.30	UL
DW-SML400/24	6000	2920C	SM400-2	4.60	2.00	5.30	UL
DW-SML450/16	6000	2920C	SM450-1	4.60	2.00	5.30	UL
DW-SML450/24	6000	2920C	SM450-2	4.60	2.00	5.30	UL
DW-SML500	6000	2920C	X2	4.60	2.00	5.30	UL
DW-SML500/16	6000	2920B	X2	4.60	2.00	5.30	UL
DW-SML500/24	6000	2920B	X2-2	4.60	2.00	5.30	UL
DW-SML550	6000	2920C	X3	4.60	2.00	5.30	UL
DW-SML550/16	6000	2920B	X3-2	4.60	2.00	5.30	UL
DW-SML550/24	6000	2920B	X3-2	4.60	2.00	5.30	UL
DW-SML600	6000	2920C	X1	4.60	2.00	5.30	UL
DW-SML600/16	6000	2920B	X1-2	4.60	2.00	5.30	UL
DW-SML600/24	6000	2920B	X1-2	4.60	2.00	5.30	UL
DW-SML650	6000	2920C	X4	4.60	2.00	5.30	UL
DW-SML650/16	6000	2920B	X4-2	4.60	2.00	5.30	UL
DW-SML650/24	6000	2920B	X4-2	4.60	2.00	5.30	UL
DW-SML700/16	6000	2920B	X5-1	4.60	2.00	5.30	UL
DW-SML700/24	6000	2920B	X5-2	4.60	2.00	5.30	UL



Solder Pad Layouts





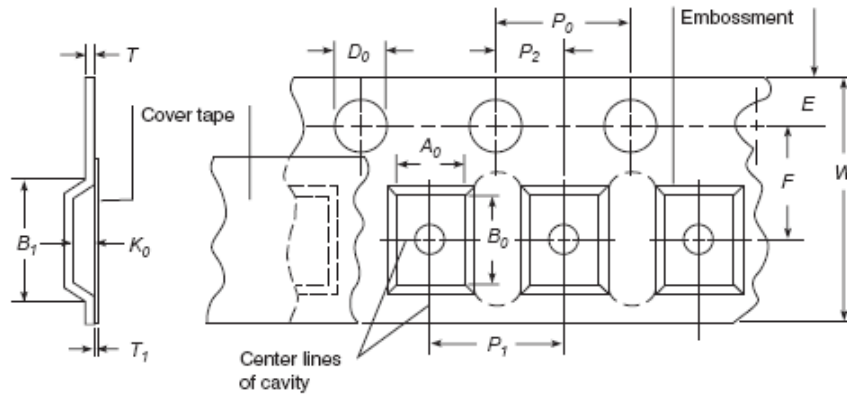
- \* Recommended reflow methods: IR, Vapor phase oven, hot air oven, wave solder.
- \* Devices can be cleaned using standard industry methods and solvents.

**Notes:**

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

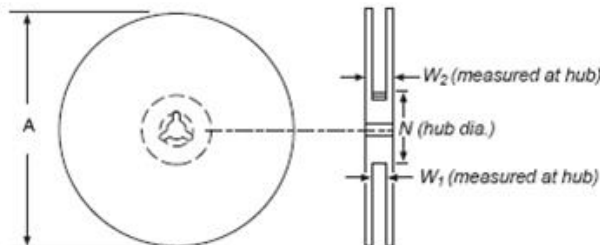
**Tape Specification And Reel Dimensions**

2920(A)	<b>W</b>	<b>P0</b>	<b>P1</b>	<b>P2</b>	<b>A0</b>	<b>B0</b>
	16.0±0.10	4.00±0.10	8.00±0.10	2.00±0.10	5.60±0.10	8.10±0.10
	<b>D0</b>	<b>F</b>	<b>E</b>	<b>T</b>	<b>K0</b>	/
	1.55±0.05	7.50±0.10	1.75±0.10	0.30±0.05	3.40±0.10	/
2920(B)	<b>W</b>	<b>P0</b>	<b>P1</b>	<b>P2</b>	<b>A0</b>	<b>B0</b>
	16.0±0.10	4.00±0.10	8.00±0.10	2.00±0.10	5.60±0.10	8.10±0.10
	<b>D0</b>	<b>F</b>	<b>E</b>	<b>T</b>	<b>K0</b>	/
	1.55±0.05	7.50±0.10	1.75±0.10	0.30±0.05	1.50±0.10	/
2920(C)	<b>W</b>	<b>P0</b>	<b>P1</b>	<b>P2</b>	<b>A0</b>	<b>B0</b>
	16.0±0.10	4.00±0.10	8.00±0.10	2.00±0.10	5.65±0.10	8.05±0.10
	<b>D0</b>	<b>F</b>	<b>E</b>	<b>T</b>	<b>K0</b>	/
	1.55±0.05	7.50±0.10	1.75±0.10	0.30±0.05	1.00±0.10	/



**Reel Dimensions**

Tape spc code	A	N	W <sub>1</sub>	W <sub>2</sub>
2920	330±1.0	100±0.5	16.4+1/-0	24.2+1.0





**Storage**

The maximum ambient temperature shall not exceed 40°C. Storage temperatures higher than 40°C could result in the deformation of packaging materials. The maximum relative humidity recommended for storage is 70%. High humidity with high temperature can accelerate the oxidation of the solder plating on the termination and reduce the solderability of the components. Sealed plastic bags with desiccant shall be used to reduce the oxidation of the termination and shall only be opened prior to use. The products shall not be stored in areas where harmful gases containing sulfur or chlorine are present.

**Warning:**

PPTC devices are intended for protection against occasional over-current or over-temperature fault conditions, and should not be used when repeated fault conditions are anticipated. Operation beyond maximum ratings or improper use may result in device damage and possible electrical arcing and flame.

**Notes:**

The specification is intended to present application, product and technical data to assist the user in selecting PPTC circuit production devices. However, users should independently evaluate and test the suitability of each product. DOWOSEMI makes no warranties as to the accuracy or completeness of the information and disclaims any liability resulting from its use. DOWOSEMI's only obligations are those in the DOWOSEMI Standard Terms and Conditions of Sale and in no case will DOWOSEMI be liable for any incidental, indirect, or consequential damages arising from the sale, resale, or misuse of its products. DOWOSEMI reserves the right to change or update, without notice, any information contained in this specification.