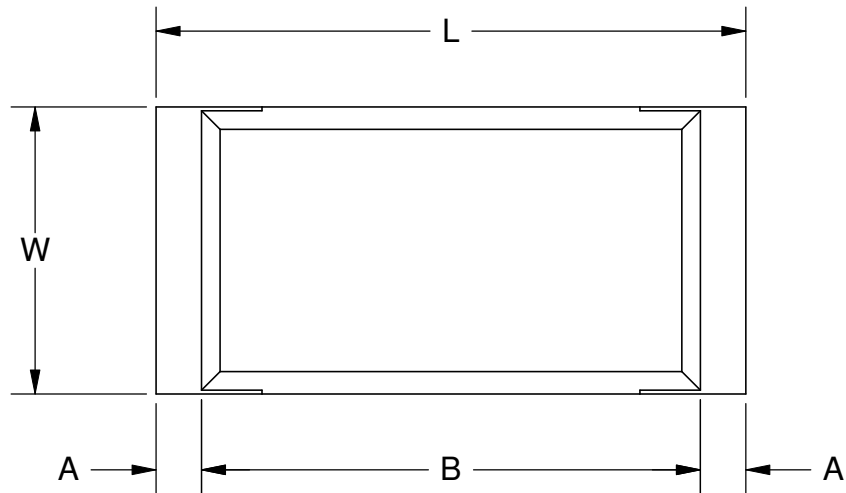
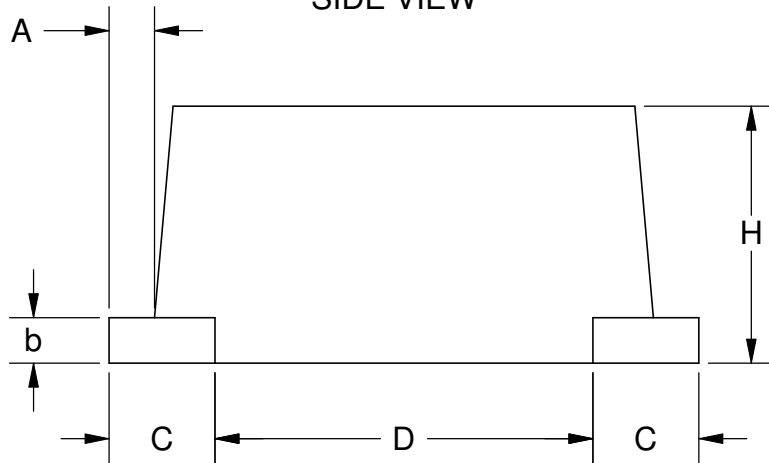


FLAT LEAD OUTLINE

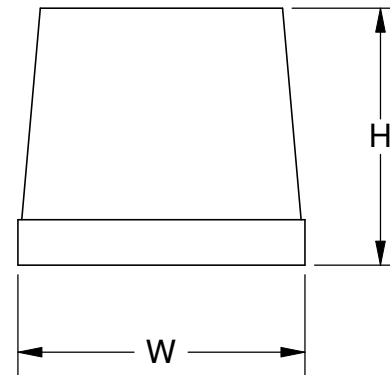
TOP VIEW



SIDE VIEW



END VIEW


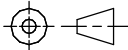


DIMENSION TABLE

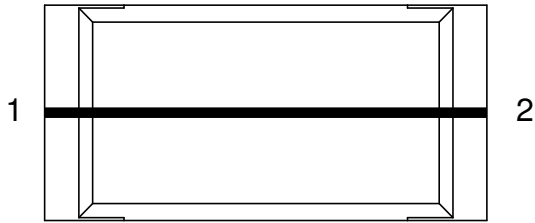
PART SERIES	SOD123FW	SMA-F	SMB-F	SMC-F
CROSS REF	-	SOD106	-	SOD15
JEDEC REF	1206	DO-214AC	DO-214AA	DO-214AB
L	3.5 - 3.9	4.5 - 4.9	5.0 - 5.4	6.3 - 6.9
W	1.5 - 1.9	2.3 - 2.7	3.2 - 3.6	4.2 - 4.8
H	1.3 - 1.7	1.5 - 1.7	1.7 - 1.9	1.9 - 2.5
A	0.3 TYP	0.3 TYP	0.4 TYP	0.3 TYP
B	2.9 - 3.3	3.9 - 4.3	4.2 - 4.6	5.7 - 6.3
C	0.7 TYP	0.8 TYP	0.8 TYP	1.2 TYP
D	2.1 - 2.5	2.9 - 3.3	3.4 - 3.9	3.9 - 4.5
b	0.2	0.2	0.2	0.4
SPACER - REF	FM400N-M	FM400N	FM20N-B	FM30N
JUMPER - REF	FM400S-M	FM400S	FM20S-B	FM30S

Notes: (Unless Otherwise Specified).

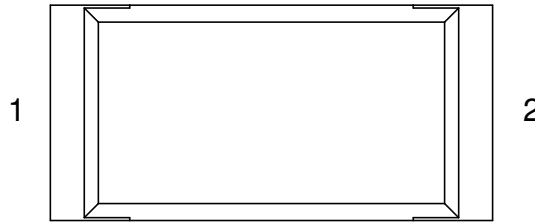
- 1) DIMENSIONS IN mm.
- 2) SEE JUMPER AND SPACER DIAGRAMS (PAGE 2).
- 3) SEE PART NUMBER CONFIGURATION (PAGE 4).
- 4) RECOMMENDED PC BOARD LAYOUT PATTERN (PAGE 6).
- 5) MOUNTING POSITION: ANY (NON-POLARIZED).
- 6) CASE: UL94-V RATED FLAME RETARDANT.

TOLERANCE UNLESS NOTED		APPROVALS	DATE				
X.X	+/- 0.3	DRAWN J. Hines	8/15/2011				
X.XX	+/- 0.03						
X.XXX	+/- 0.003			ENG		SCALE 20:1	SIZE A
ALL DIMENSIONS IN		MFG					
<input type="checkbox"/> INCHES <input checked="" type="checkbox"/> MILLIMETERS		QA					
THIRD ANGLE PROJECTION		CUST					
		REVISED		DO NOT SCALE DRAWING			
							SHEET 1 OF 7

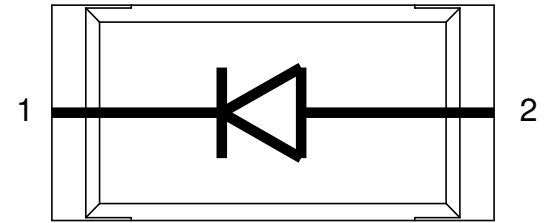
INTERNAL WIRING CIRCUIT
PART NUMBER SUFFIX
TOP VIEW



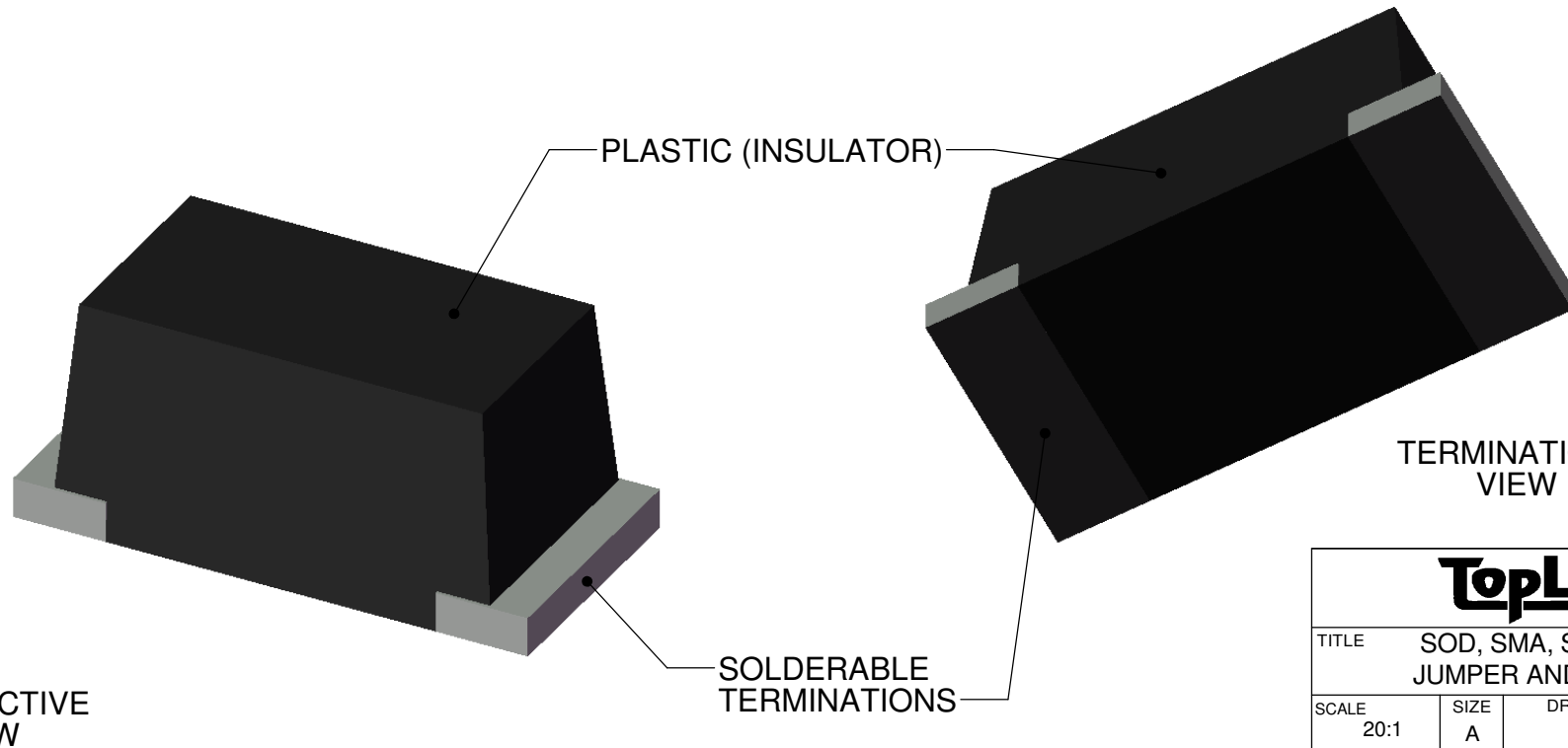
DC12
1-WIRE
CIRCUIT JUMPER



ISO
NO CONNECTION
FULLY ISOLATED
NON-CONDUCTIVE SPACER

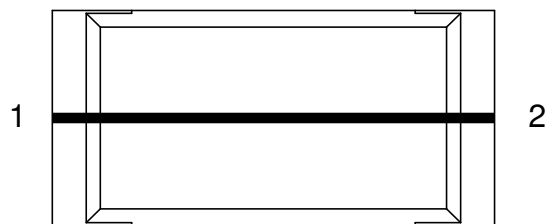


BLANK SUFFIX
UNDEFINED CIRCUIT
DUMMY



TopLine ®			
TITLE		SOD, SMA, SMB, SMC JUMPER AND SPACER	
SCALE	SIZE	DRAWING NO.	REV
20:1	A	121200	A
DO NOT SCALE DRAWING			SHEET 2 OF 7

SCHEMATIC EQUIVALENT INTERNAL CIRCUIT

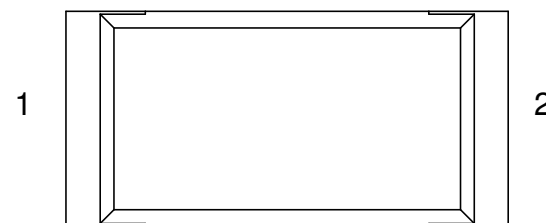


DC12
(SHORT CIRCUIT)



ELECTRICAL RESISTANCE MILIOHM (DC) MAX	
CIRCUIT	PIN 1 TO PIN 2
DC12	< 1.0 milli Ω

SCHEMATIC EQUIVALENT INTERNAL CIRCUIT



ISOLATED CIRCUIT
NO CONNECTIONS



INSULATION RESISTANCE GIGA OHM (DC) MIN	
CIRCUIT	PIN 1 TO PIN 2
ISO	> 10 G Ω

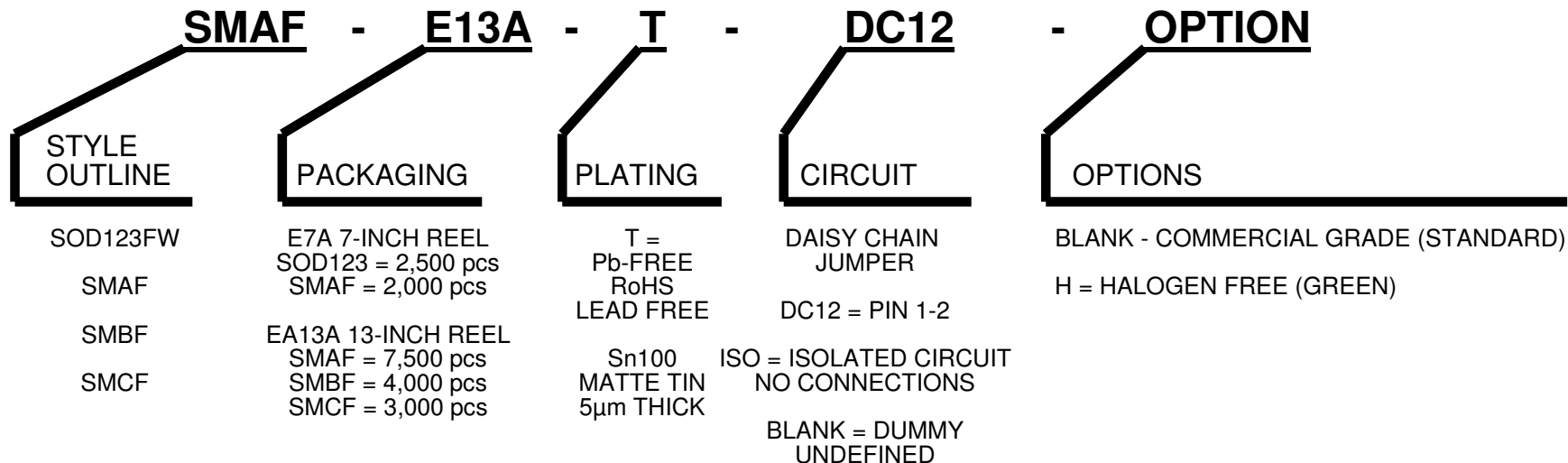
THERMAL RESISTANCE	PART TYPE			
	SOD123FW	SMA-F	SMB-F	SMC-F
JUNCTION TO AMBIENT ($T_a=25^\circ$) $R_{th(j-a)}$	60 $^\circ\text{C/W}$	50 $^\circ\text{C/W}$	12 $^\circ\text{C/W}$	47 $^\circ\text{C/W}$

TEMPERATURE RATING	
JUNCTION TEMP T_j	150 $^\circ\text{C}$
STORAGE TEMP T_{stg}	-65 $^\circ\text{C}$ TO 150 $^\circ\text{C}$
PEAK REFLOW TEMP T_{reflow} 10 SECONDS	260 $^\circ\text{C}$

MAXIMUM ELECTRICAL (DC) RATING	PART TYPE			
	SOD123FW	SMA-F	SMB-F	SMC-F
V_R WORKING VOLTAGE	1000V	1000V	1000V	1000V
V_F FORWARD @ RATED CURRENT	< 0.2V	< 0.2V	< 0.2V	< 0.2V
I_o FORWARD CURRENT	0.5 A	1.0 A	2.0 A	3.0 A
I_{FSM} FORWARD SURGE CURRENT	30 A	30 A	70 A	100 A
I_R REVERSE CURRENT	0.5 A	1.0 A	2.0 A	3.0 A
C_j JUNCTION CAPACITANCE	15 pF	15 pF	30 pF	40 pF

TopLine [®]			
TITLE SOD, SMA, SMB, SMC JUMPER AND SPACER			
SCALE 15:1	SIZE A	DRAWING NO. 121200	REV A
DO NOT SCALE DRAWING			SHEET 3 OF 7

PART NUMBERING SYSTEM



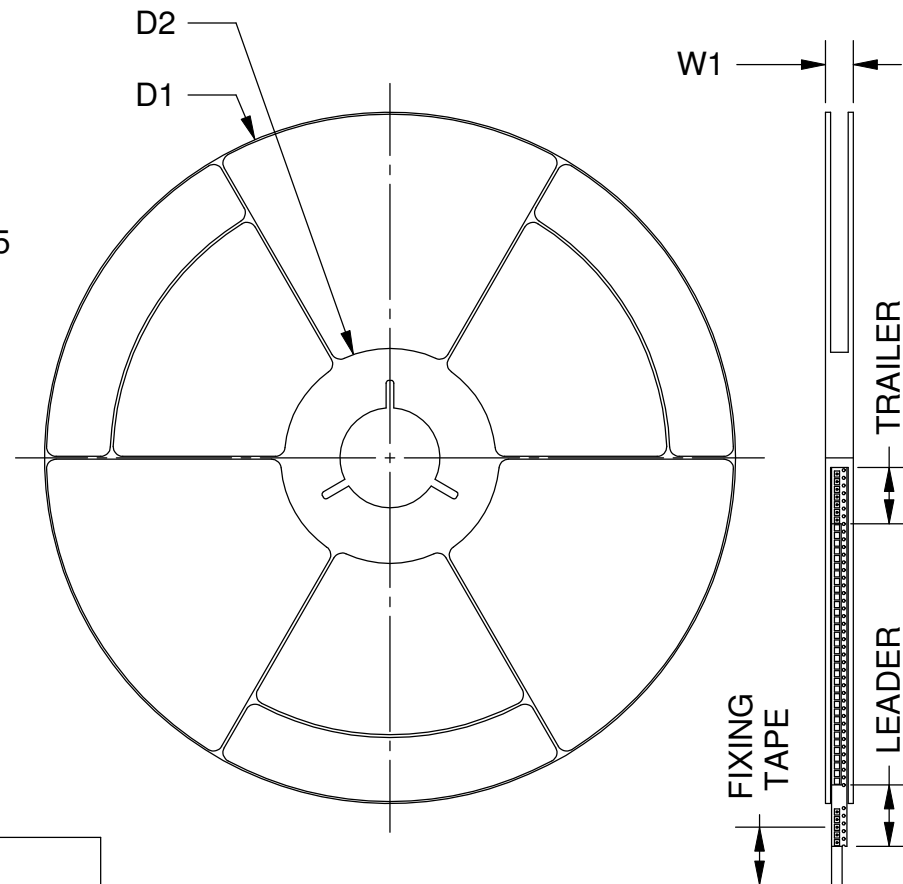
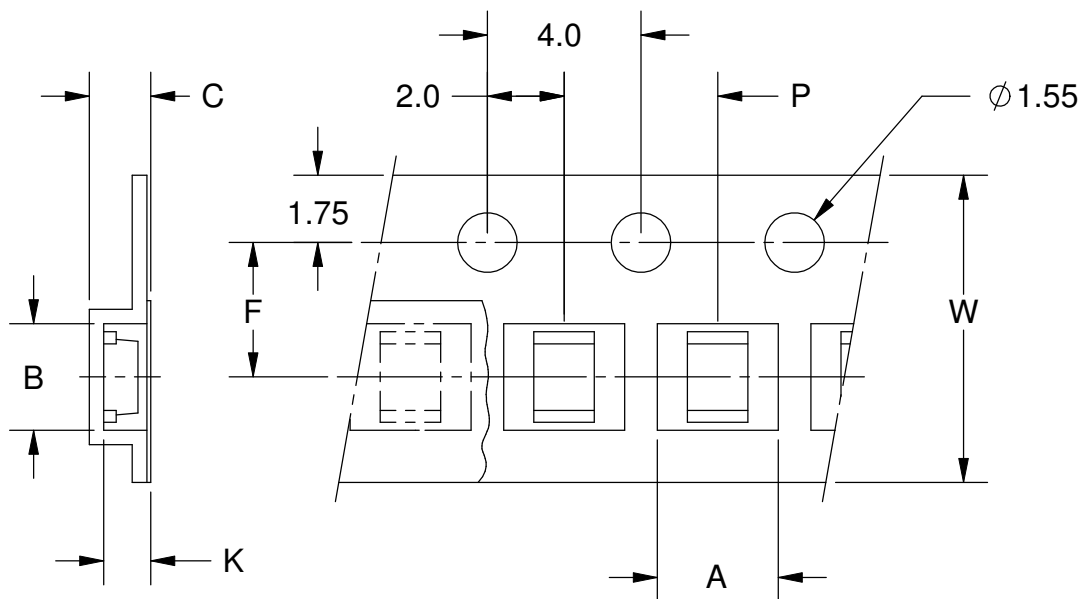
OUTLINE	REEL QTY	NOTES	RoHS	MSL LEVEL	HALOGEN FREE	APPLICATION	TOP MARK	REF	DP#
SOD123FW-E7A-T-DC12	2500	SHORTED	YES	1	NO	JUMPER	S	FM400S-M	171230
SMAF-E7A-T-DC12	2000	SHORTED	YES	1	NO	JUMPER	SC	FM400S	161001
SMAF-E13A-T-DC12	7500	SHORTED	YES	1	NO	JUMPER	SC	FM400S	167084
SMBF-E13A-T-DC12	4000	SHORTED	YES	1	NO	JUMPER	SC	FM20S-B	151076
SMCF-E13A-T-DC12	3000	SHORTED	YES	1	NO	JUMPER	SC	FM30S	158061
SOD123FW-E7A-T-ISO	2500	OPEN CIRCUIT	YES	1	NO	SPACER	N	FM400N-M	164321
SMAF-E7A-T-ISO	2000	OPEN CIRCUIT	YES	1	NO	SPACER	NC	FM400N	173077
SMAF-E13A-T-ISO	7500	OPEN CIRCUIT	YES	1	NO	SPACER	NC	FM400N	172043
SMBF-E13A-T-ISO	4000	OPEN CIRCUIT	YES	1	NO	SPACER	NC	FM20N-B	130472
SMCF-E13A-T-ISO	3000	OPEN CIRCUIT	YES	1	NO	SPACER	NC	FM30N	167024

OPTIONAL: HALOGEN FREE AVAILABLE (ADD SUFFIX "H").

TopLine ®			
TITLE		SOD, SMA, SMB, SMC JUMPER AND SPACER	
SCALE	SIZE	DRAWING NO.	REV
25:1	A	121200	A
DO NOT SCALE DRAWING			SHEET 4 OF 7

TAPE SPECIFICATION
SURFACE MOUNT DEVICE

7 AND 13 INCH PACKAGE REEL



DIRECTION OF UNREELING →

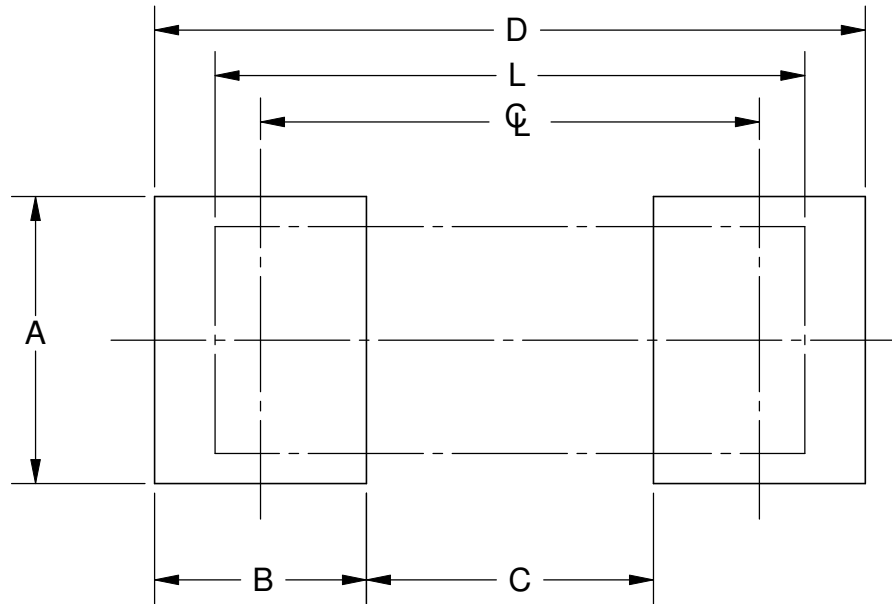
PARTS ARE NON-POLARIZED

TAPE AND REEL DIMENSIONS	SYMBOL	E7A 7-INCH		E13A 13-INCH		
		SOD123	SMAF	SMAF	SMBF	SMCF
TAPE WIDTH	W	8	12	12	12	12
PITCH OF COMPONENTS	P	4	4	4	8	8
POCKET WIDTH	A	1.9	2.8	2.8	3.81	5.1
POCKET LENGTH	B	3.9	5.0	5.0	5.74	7.20
POCKET DEPTH	K	1.68	1.90	1.90	2.24	2.50
CARRIER THICKNESS	C	1.91	2.1	2.1	2.47	2.73
REEL DIAMETER	D1	178	178	330	330	330
HUB DIAMETER	D2	50	50	50	50	50
PUNCH HOLE POSITION	F	3.5	5.5	5.5	5.5	5.5
MAX REEL WIDTH	W1	11.4	18	18	18	18
REF (JUMPER)	-	FM400S-M	FM400S	FM400S	FM20S-B	FM30S
REF (SPACER)	-	FM400N-M	FM400N	FM400N	FM20N-B	FM30N
QUANTITY (PSC)	-	2500	2000	7500	4000	3000

ALL DIMENSIONS IN mm.

TopLine [®]			
TITLE SOD, SMA, SMB, SMC JUMPER AND SPACER			
SCALE 1:1	SIZE A	DRAWING NO. 121200	REV A
DO NOT SCALE DRAWING		SHEET 5 OF 7	

PC BOARD LAND PATTERN



ALL DIMENSIONS IN mm

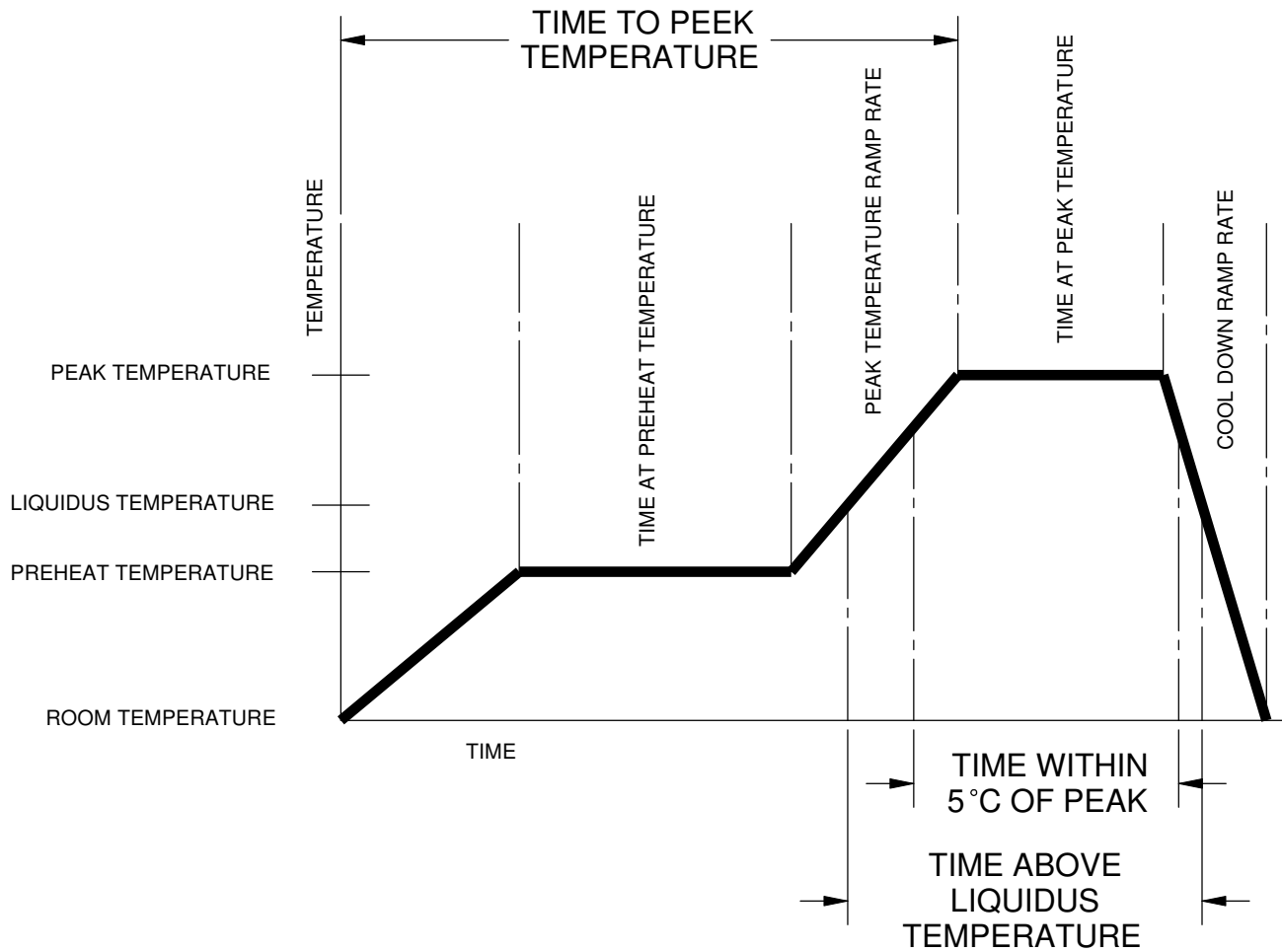
PCB PAD DIMENSIONS				
SYMBOL	SOD123FW	SMAF	SMBF	SMCF
A	1.90	2.8	3.60	4.80
B	1.40	1.6	1.50	1.60
C	1.90	2.2	3.00	4.60
D	4.70	5.4	6.00	7.80
Q	3.3	3.8	4.5	6.2
L	3.5 - 3.9	4.5 - 4.9	5.0 - 5.4	6.3 - 6.9
REF JUMPER	FM400S-M	FM400S	FM20S-B	FM30S
REF SPACER	FM400N-M	FM400N	FM20N-B	FM30N

Notes: (Unless Otherwise Specified).

- 1) DIMENSIONS IN mm.
- 2) PCB BOARD DIMENSIONS ARE PRESENTED ONLY AS A GUIDELINE. DESIGNERS SHOULD USE THEIR OWN EXPERIENCE WHEN DESIGNING PCB.

TopLine [®]			
TITLE		SOD, SMA, SMB, SMC JUMPER AND SPACER	
SCALE	SIZE	DRAWING NO.	REV
20:1	A	121200	A
DO NOT SCALE DRAWING			SHEET 6 OF 7

LEAD FREE REFLOW PROFILE OF SMD PACKAGE



DESCRIPTION	REQUIREMENT
AVERAGE PREHEAT RAMP RATE	3°C /SECOND MAXIMUM
PREHEAT TEMPERATURE	150°C MINIMUM, 200°C MAXIMUM
PREHEAT TIME	60 TO 120 SECONDS
RAMP TO PEAK	3°C /SECOND MAXIMUM
TIME OVER LIQUIDUS (217 °C)	60 TO 260 SECONDS
PEAK TEMPERATURE	260°C +0/-5 °C
TIME WITHING 5°C OF PEAK	10 TO 30 SECONDS
RAMP - COOL DOWN	6°C /SECONDS MAXIMUM
TIME 25°C TO PEAK	6 MINUTES MAXIMUM

TopLine ®			
TITLE		SOD, SMA, SMB, SMC JUMPER AND SPACER	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	121200	A
DO NOT SCALE DRAWING			SHEET 7 OF 7