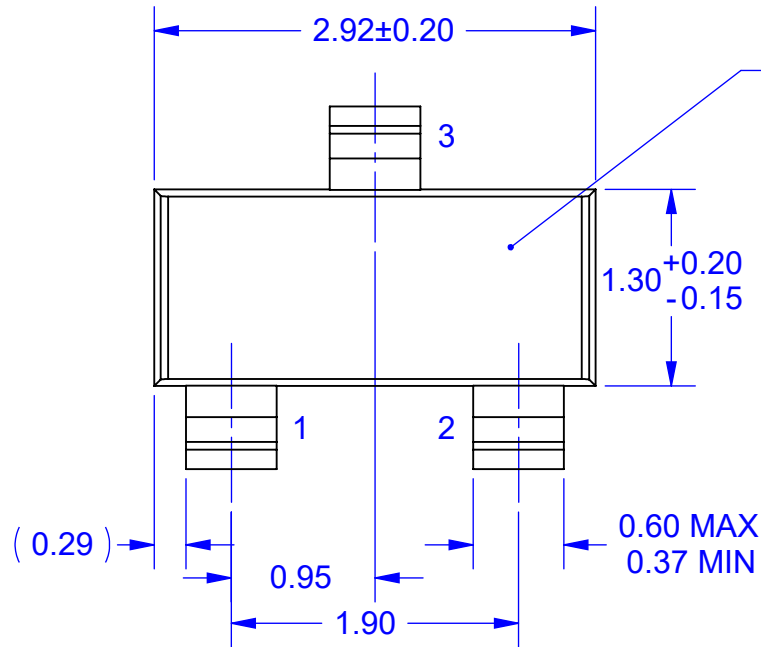
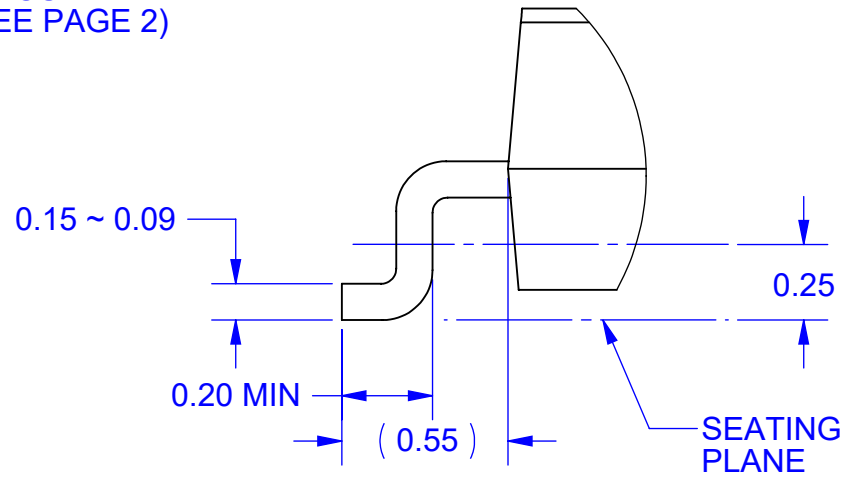


ZERO OHM JUMPER SOT23 PACKAGE

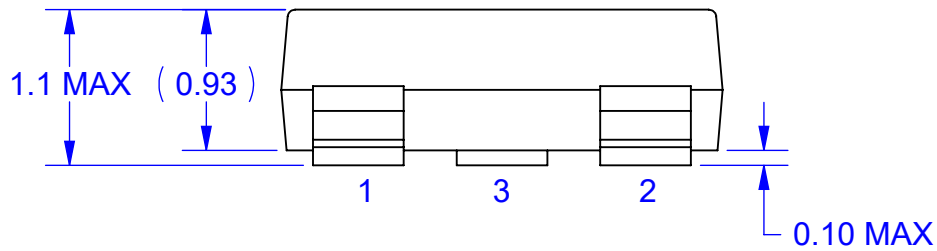
TOP VIEW



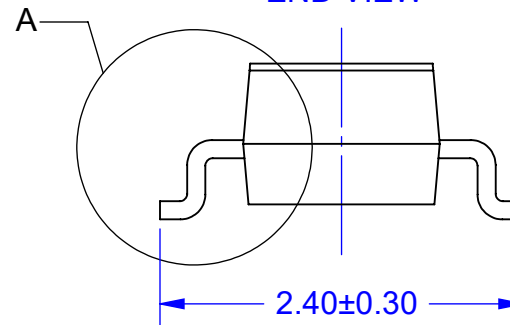
DETAIL A
SCALE 40 : 1



SIDE VIEW



END VIEW

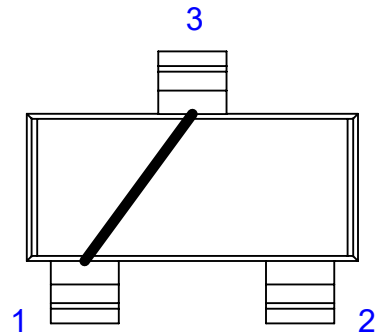


Notes: (Unless Otherwise Specified).

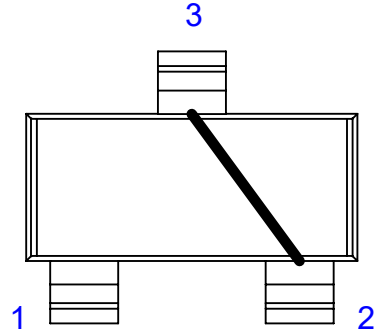
- 1) DIMENSIONS IN mm.
- 2) SEE JUMPER DIAGRAMS (PAGE 2).
- 3) SEE PART NUMBER CONFIGURATION (PAGE 4).
- 4) RECOMMENDED PC BOARD LAYOUT PATTERN (PAGE 7).

TOLERANCE UNLESS NOTED		APPROVALS		DATE		TopLine ®			
X.X	+/- 0.3	DRAWN T. Au		9/10/2022		TITLE SOT23 JUMPER ZERO OHM RESISTORS			
X.XX	+/- 0.03								
X.XXX	+/- 0.003	ENG M. Hart		9/10/2022		SCALE 20:1 SIZE A DRAWING NO. 120023 REV A			
ANGLES +/- 0.5°		MFG							
ALL DIMENSIONS IN		THIRD ANGLE PROJECTION				DO NOT SCALE DRAWING SHEET 1 OF 8			
<input type="checkbox"/> INCHES	<input checked="" type="checkbox"/> MILLIMETERS								
		QA		CUST		REVISED			

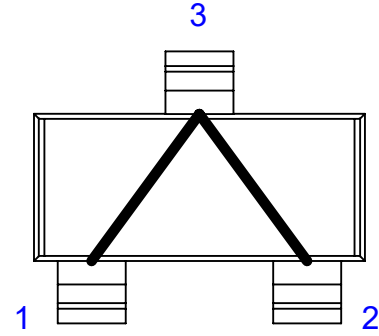
**INTERNAL WIRING CIRCUIT (JUMPER)
PART NUMBER SUFFIX
TOP VIEW**



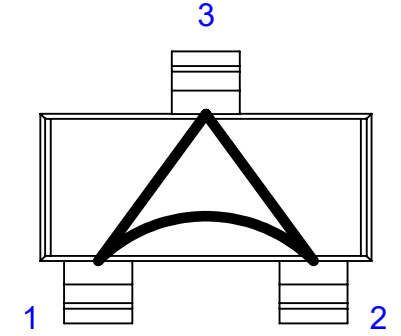
DC13
1-WIRE



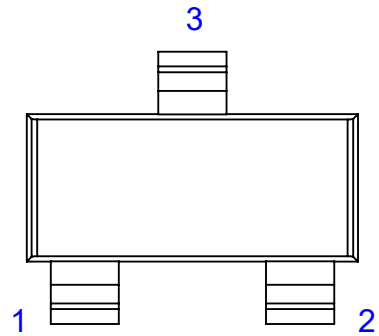
DC23
1-WIRE



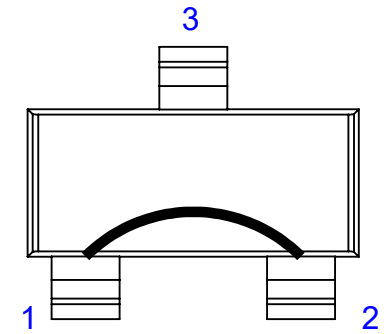
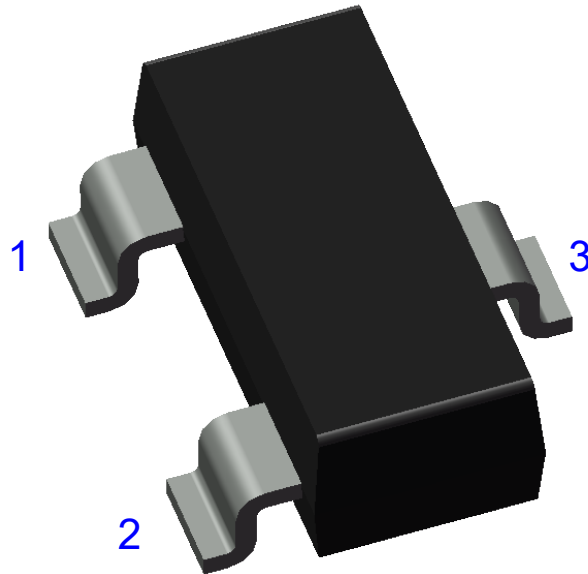
DC123
2-WIRE



DC1231
3-WIRE
SAFETY WIRE
DESIGN



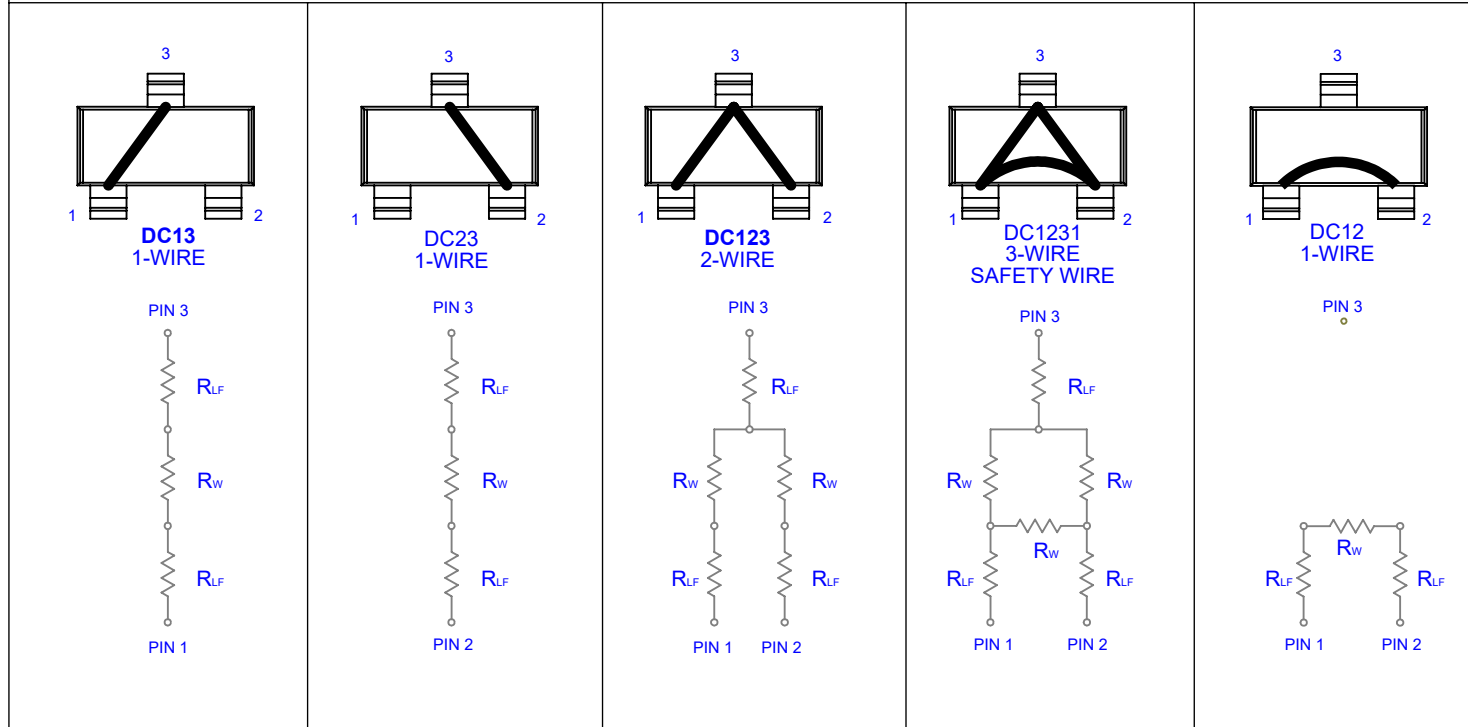
-ISO
NO WIRES
FULLY ISOLATED



DC12
1-WIRE

TopLine ®			
TITLE SOT23 JUMPER ZERO OHM RESISTORS			
SCALE 25:1	SIZE A	DRAWING NO. 120023	REV A
DO NOT SCALE DRAWING		SHEET 2 OF 8	

SCHEMATIC EQUIVALENT INTERNAL CIRCUIT



R_W = Cu WIRE-BOND. R_{LF} = LEAD FRAME.

TEMPERATURE RATING	
JUNCTION TEMP T_J	150 °C
STORAGE TEMP T_{stg}	-65 °C TO 150 °C
OPERATING TEMP	-65 °C TO 150 °C
PEAK REFLOW TEMP T_{reflow} 10 SECONDS	260 °C

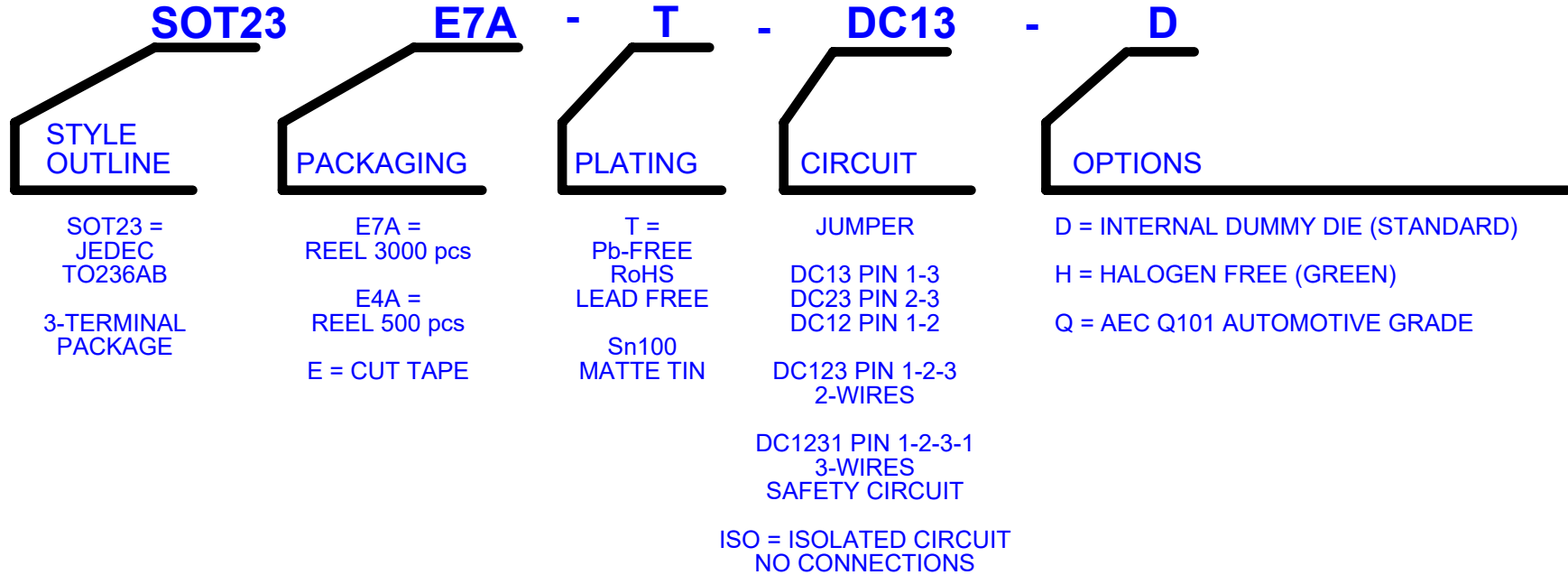
ELECTRICAL RESISTANCE MILLIOHM (DC) MAX			
CIRCUIT	PIN 1 TO 3	PIN 2 TO 3	PIN 1 TO 2
DC23	--	50 mΩ	--
DC123	50 mΩ	50 mΩ	75 mΩ
DC1231	50 mΩ	50 mΩ	50 mΩ
DC12	--	--	50 mΩ
DC13	50 mΩ	--	--

THERMAL RESISTANCE	
JUNCTION TO AMBIENT ($T_a=25^\circ$) $R_{th(j-a)}$	350K/W

MAXIMUM ELECTRICAL (DC) RATING	
WORKING VOLTAGE	75 V
CURRENT RATING	150 mA
POWER @ 25°C	350 mW

TopLine ®			
TITLE SOT23 JUMPER ZERO OHM RESISTORS			
SCALE 8:1	SIZE A	DRAWING NO. 120023	REV A
DO NOT SCALE DRAWING			SHEET 3 OF 8

PART NUMBERING SYSTEM



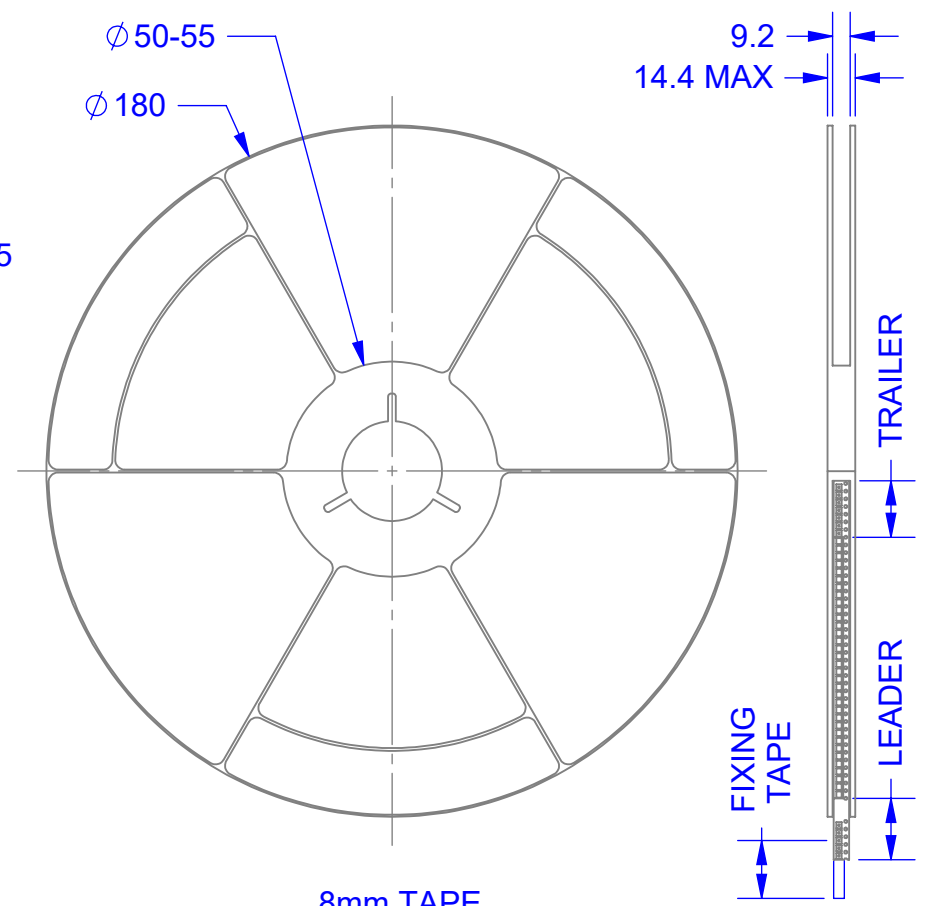
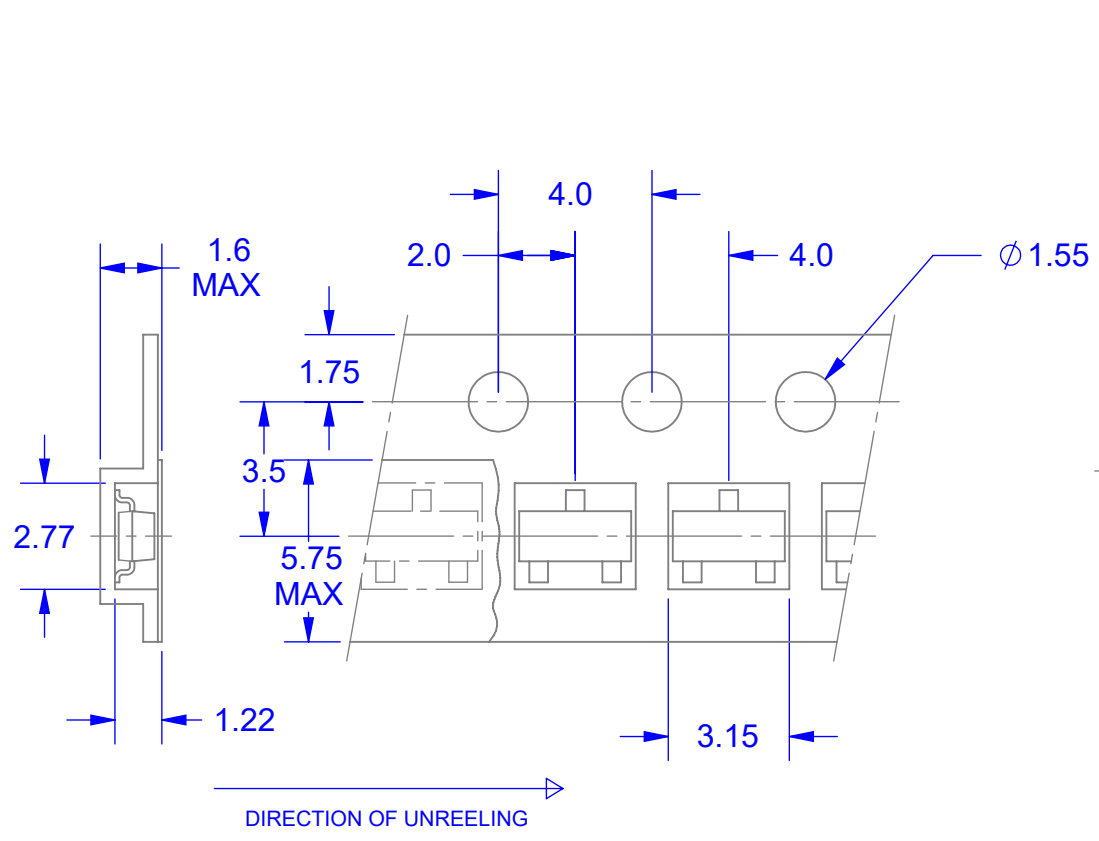
PART NUMBER	SHORTED PINS	NOTES	RoHS Pb-FREE	MSL LEVEL	HALOGEN FREE	GRADE	TOP MARK
SOT23E7A-T-ISO	NONE	FULLY ISOLATED	YES	3	NO	COMMERCIAL	ISO
SOT23E7A-T-DC13D	1-3	1-WIRE	YES	3	NO	COMMERCIAL	D13
SOT23E7A-T-DC23D	2-3	1-WIRE	YES	3	NO	COMMERCIAL	D23
SOT23E7A-T-DC123D	1-2-3	2-WIRES	YES	3	NO	COMMERCIAL	123
SOT23E7A-T-DC13H	1-3	1-WIRE	YES	1	YES	COMMERCIAL	13H
SOT23E7A-T-DC13Q	1-3	1-WIRE	YES	1	YES	AEC-Q101	13Q
SOT23E7A-T-DC23H	2-3	1-WIRE	YES	1	YES	COMMERCIAL	23H
SOT23E7A-T-DC23Q	2-3	1-WIRE	YES	1	YES	AEC-Q101	23Q
SOT23E7A-T-DC1231H	1-2-3	3-WIRES	YES	1	YES	COMMERCIAL	3H
SOT23E7A-T-DC1231Q	1-2-3	3-WIRES	YES	1	YES	AEC-Q101	3Q
SOT23E7A-T-DC12D	1-2	1-WIRES	YES	3	NO	COMMERCIAL	D12

NOTES: ADD "D" TO END OF PART NUMBER FOR DUMMY SILICON DIE.

TopLine ®			
TITLE SOT23 JUMPER ZERO OHM RESISTORS			
SCALE 25:1	SIZE A	DRAWING NO. 120023	REV A
DO NOT SCALE DRAWING		SHEET 4 OF 8	

TAPE SPECIFICATION FOR SOT-23
SURFACE MOUNT DEVICE

SOT-23 PACKAGE REEL



8mm TAPE
SIZE OF REEL
180mm (7")
3,000 PCS

ALL DIMENSIONS IN mm

TopLine [®]			
TITLE SOT23 JUMPER ZERO OHM RESISTORS			
SCALE 1:1	SIZE A	DRAWING NO. 120023	REV A
DO NOT SCALE DRAWING		SHEET 5 OF 8	

MATERIALS CONTENT DECLARATION FORM SOT23 PACKAGE


PART NUMBER SUFFIX OPTION: D

PART NUMBER SUFFIX OPTION: H AND Q

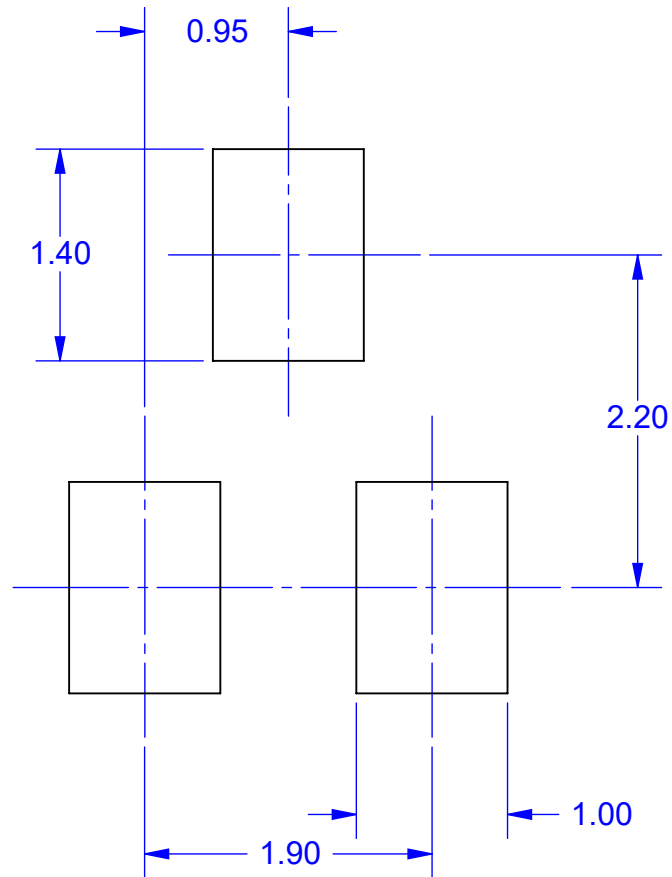
NOTE: EPOXY IS Pb-FREE, RoHS NON-GREEN, NON-HALOGEN FREE					
1 PC WT: 8.8494 mg					
COMPOSITION BREAKDOWN	M.U.M. (MAKE UP OF MATERIALS)	CHEMICAL COMPOSITION	CAS NO	CONTENT (IN %, TOTAL = 100%)	SUBSTANCE WEIGHT (IN mg)
LEADFRAME (2.714 mg)	ALLOY-42	IRON (Fe) NICKEL (Ni) COBALT (Co) COPPER (Cu) SILVER (Ag)	7439-89-6 7440-02-0 7440-48-4 7440-50-8 7440-22-4	20.9 9.0 0.1 0.0 0.7	1.8500 0.7929 0.0050 0.0020 0.0648
CHIP (0.0127 mg)	SILICON	SILICON (Si)	7440-21-3	0.1	0.0127
BONDING WIRE (0.038 mg)	COPPER	COPPER (Cu)	7440-50-8	0.4	0.0380
ENCAPSULATION (6.06 mg)	EPOXY RESIN	SILICON DIOXIDE (SiO2) EPOXY ANTIMONY TRIOXIDE (Sb2O3) BROMINATED EPOXY	60676-86-0 29690-82-2 1309-64-4 68928-70-1	48.0 18.5 1.0 1.0	4.2420 1.6360 0.0900 0.0900
TERMINATION PLATING (0.026 mg)	PURE TIN	TIN (Sn)	7440-31-5	0.3	0.0260

NOTE: EPOXY IS GREEN, HALOGEN FREE, Pb-FREE, RoHS					
1 PC WT: 8.8494 mg					
COMPOSITION BREAKDOWN	M.U.M. (MAKE UP OF MATERIALS)	CHEMICAL COMPOSITION	CAS NO	CONTENT (IN %, TOTAL = 100%)	SUBSTANCE WEIGHT (IN mg)
LEADFRAME (2.714 mg)	ALLOY-42	IRON (Fe) NICKEL (Ni) COBALT (Co) COPPER (Cu) SILVER (Ag)	7439-89-6 7440-02-0 7440-48-4 7440-50-8 7440-22-4	20.9 9.0 0.1 0.0 0.7	1.8500 0.7929 0.0050 0.0020 0.0648
CHIP (0.0127 mg)	SILICON	SILICON (Si)	7440-21-3	0.1	0.0127
BONDING WIRE (0.038 mg)	COPPER	COPPER (Cu)	7440-50-8	0.4	0.0380
ENCAPSULATION (6.06 mg)	EPOXY RESIN	SILICON DIOXIDE (SiO2) EPOXY *PROPRIETARY FLAME RETARDANT	60676-86-0 29690-82-2 ---	48.0 18.5 2.0	4.2420 1.6360 0.1800
TERMINATION PLATING (0.026 mg)	PURE TIN	TIN (Sn)	7440-31-5	0.3	0.0260

* PROPRIETARY HYDROXIDE OF MAGNESIUM AND ALUMINUM.

			
TITLE SOT23 JUMPER ZERO OHM RESISTORS			
SCALE 1:1	SIZE A	DRAWING NO. 120023	REV A
DO NOT SCALE DRAWING			SHEET 6 OF 8

PC BOARD LAND PATTERN



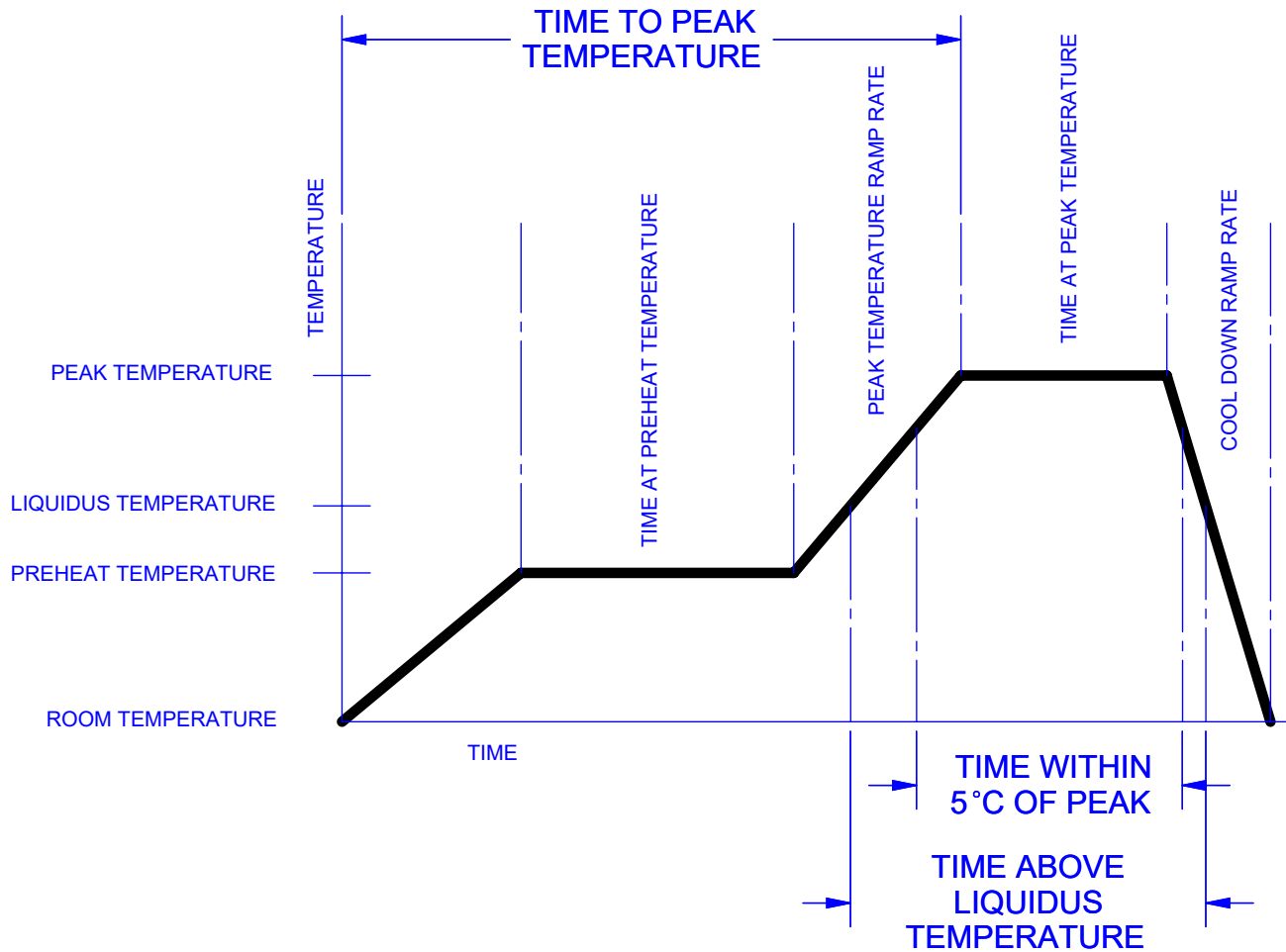
Notes: (Unless Otherwise Specified).

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		SOT23 JUMPER ZERO OHM RESISTORS	
SCALE	SIZE	DRAWING NO.	REV
20:1	A	120023	A
DO NOT SCALE DRAWING			SHEET 7 OF 8

LEAD FREE REFLOW PROFILE OF SMT PACKAGE



DESCRIPTION	REQUIREMENT
AVERAGE PREHEAT RAMP RATE	3°C /SECOND MAXIMUM
PREHEAT TEMPERATURE	150°C MINIMUM, 200°C MAXIMUM
PREHEAT TIME	60 TO 80 SECONDS
RAMP TO PEAK	3°C /SECOND MAXIMUM
TIME OVER LIQUIDUS (217°C)	60 TO 150 SECONDS
PEAK TEMPERATURE	260°C +0/-5°C
TIME WITHING 5°C OF PEAK	20 TO 40 SECONDS
RAMP - COOL DOWN	6°C /SECONDS MAXIMUM
TIME 25°C TO PEAK	8 MINUTES MAXIMUM

TopLine ®			
TITLE		SOT23 JUMPER ZERO OHM RESISTORS	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	120023	A
DO NOT SCALE DRAWING			SHEET 8 OF 8