

## NPN SILICON DUAL TRANSISTOR

Qualified per MIL-PRF-19500 /495

### DEVICES

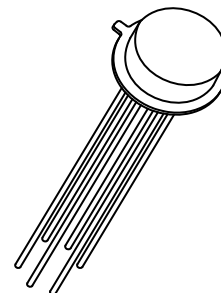
**2N5793**  
**2N5794      2N5794U      2N5794UC**

### LEVELS

**JAN**  
**JANTX**  
**JANTV**  
**JANS**

### ABSOLUTE MAXIMUM RATINGS ( $T_C = +25^\circ\text{C}$ unless otherwise noted)

Parameters / Test Conditions	Symbol	Value		Unit
Collector-Emitter Voltage	$V_{CEO}$	40		Vdc
Collector-Base Voltage	$V_{CBO}$	75		Vdc
Emitter-Base Voltage	$V_{EBO}$	6.0		Vdc
Collector Current	$I_C$	600		mAdc
		One Section <sup>1</sup>	Total Device <sup>2</sup>	
Total Power Dissipation @ $T_A = +25^\circ\text{C}$	$P_T$	0.5	0.6	W
Operating & Storage Junction Temperature Range	$T_{op}, T_{stg}$	-65 to +200		$^\circ\text{C}$



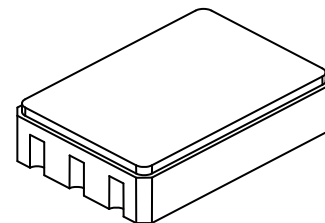
**TO-78**

### NOTES:

- Derate linearly 2.86 mW/ $^\circ\text{C}$  for  $T_A > +25^\circ\text{C}$
- Derate linearly 3.43 mW/ $^\circ\text{C}$  for  $T_A > +25^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_A = +25^\circ\text{C}$ , unless otherwise noted)

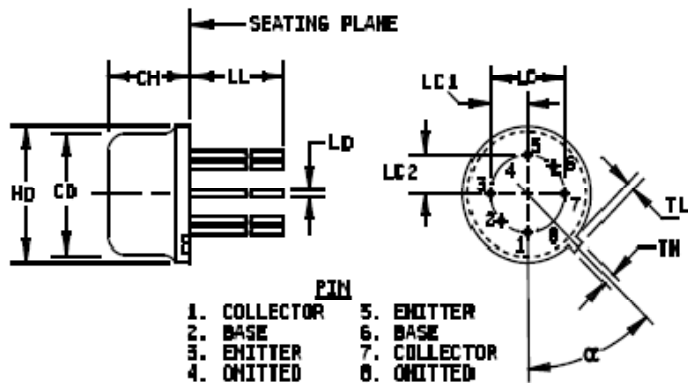
Parameters / Test Conditions	Symbol	Min.	Max.	Unit
<b>OFF CHARACTERISTICS</b>				
Collector-Emitter Breakdown Current $I_C = 10\text{mAdc}$	$V_{(BR)CEO}$	40		Vdc
Collector-Base Cutoff Current $V_{CB} = 75\text{Vdc}$ $V_{CB} = 50\text{Vdc}$	$I_{CBO}$		10 10	$\mu\text{Adc}$ $\eta\text{Adc}$
Emitter-Base Cutoff Current $V_{EB} = 6.0\text{Vdc}$ $V_{EB} = 4.0\text{Vdc}$	$I_{EBO}$		10 10	$\mu\text{Adc}$ $\eta\text{Adc}$



**6 PIN SURFACE MOUNT**



**PACKAGE DIMENSIONS**

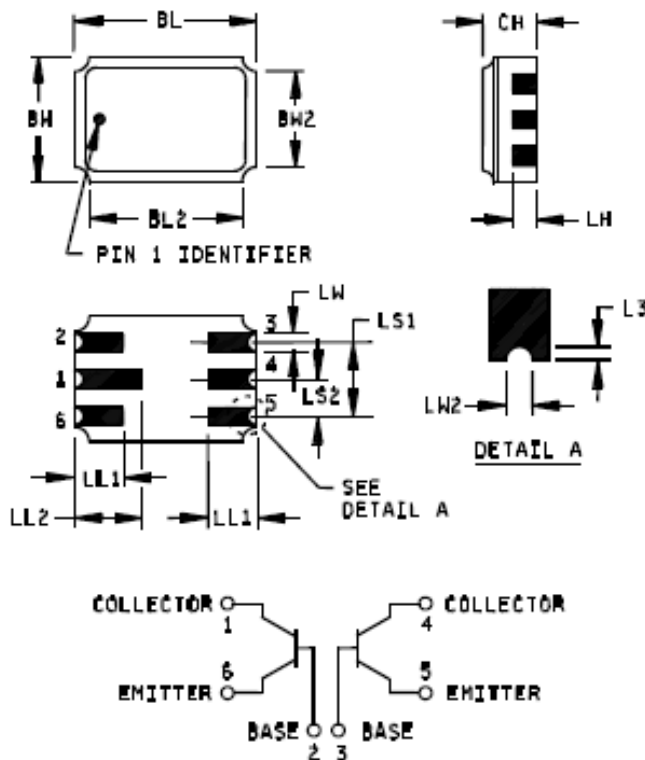


Symbol	Inches		Millimeters		Note
	Min	Max	Min	Max	
CD	.305	.335	7.75	8.51	
CH	.150	.185	3.81	4.70	
H	.335	.370	8.51	9.40	
L	.016	.021	0.41	0.53	
L	.500		12.7		
LC	.200 BSC		5.08 BSC		4
LC	.100 BSC		2.54 BSC		
LC	.100 BSC		2.54 BSC		
T	.029	.045	0.74	1.14	3
T	.028	.034	0.71	0.86	
$\alpha$	45° TP		45° TP		6

**NOTES:**

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Measured from maximum diameter of the product.
4. Leads having maximum diameter .019 inch (.483 mm) measured in gaging plan .054 inch (1.37 mm) + .001 inch (.025 mm) - .000 inch (.000 mm) below the seating plane of the product shall be within .007 inch (.178 mm) of their true position relative to a maximum width tab.
5. The product may be measured by direct methods or by gauge.
6. Tab centerline.
7. In accordance with ASME Y14.5M, diameters are equivalent to  $\phi$ x symbology.

**FIGURE 1.** Physical dimensions (2N5793 and 2N5797) (similar to TO-99)



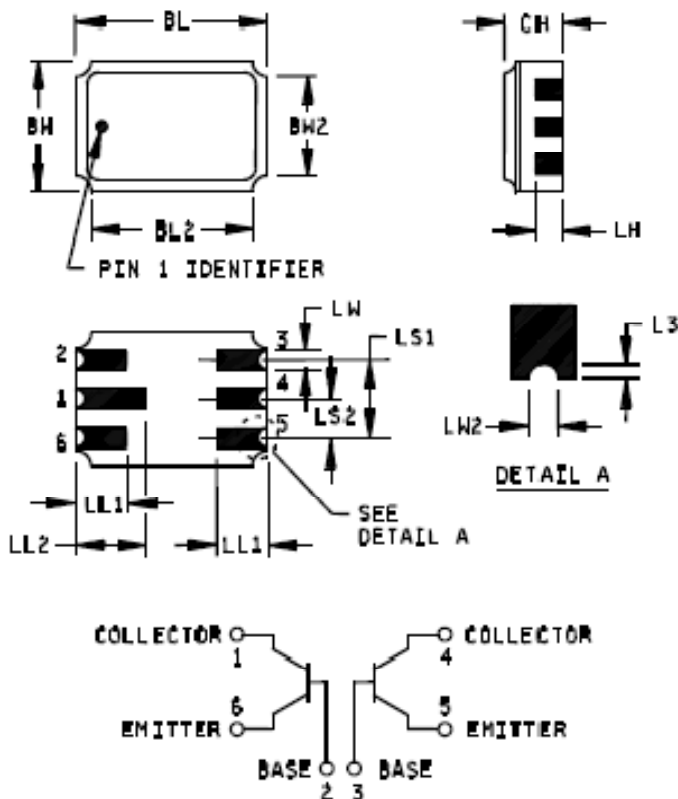
Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BL	.240	.250	6.10	6.35
BL2		.250		6.35
BW	.165	.175	4.19	4.45
BW2		.175		4.45
CH	.058	.100	1.47	2.54
L3	.003	.007	0.08	0.18
LH	.026	.039	0.66	0.99

Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
LL1	.060	.070	1.52	1.78
LL2	.082	.098	2.08	2.49
LS1	.095	.105	2.41	2.67
LS2	.045	.055	1.14	1.40
LW	.022	.028	0.56	0.71
LW2	.006	.022	0.15	0.56

**NOTES:**

- Dimensions are in inches.
- Millimeters are given for general information only.
- Dimension "CH" controls the overall package thickness.
- The corner shape (square, notch, radius, etc.) may vary at the manufacturer's option from that shown on the drawing.
- Dimensions "LW2" minimum and "L3" minimum and the appropriate castellation length define an unobstructed three-dimensional space traversing all of the ceramic layers in which a castellation was designed. (Castellations are required on bottom two layers, optional on top ceramic layer.) Dimension "LW2" maximum and "L3" maximum define the maximum width and depth of the castellation at any point on its surface. Measurement of these dimensions may be made prior to solder dipping.
- Lead 4 = collector.
- In accordance with ASME Y14.5M, diameters are equivalent to  $\phi$ x symbology.

**FIGURE 2.** Physical dimensions, 2N5794U.



Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BL	.240	.250	6.10	6.35
BL2		.250		6.35
BW	.165	.175	4.19	4.45
BW2		.175		4.45
CH	.058	.115	1.47	2.92
L3	.003	.007	0.08	0.18
LH	.026	.039	0.66	0.99

Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
LL1	.060	.070	1.52	1.78
LL2	.082	.098	2.08	2.49
LS1	.095	.105	2.41	2.67
LS2	.045	.055	1.14	1.40
LW	.022	.028	0.56	0.71
LW2	.006	.022	0.15	0.56

**NOTES:**

- Dimensions are in inches.
- Millimeters are given for general information only.
- Dimension "CH" controls the overall package thickness and is ceramic.
- The corner shape (square, notch, radius, etc.) may vary at the manufacturer's option from that shown on the drawing.
- Dimensions "LW2" minimum and "L3" minimum and the appropriate castellation length define an unobstructed three-dimensional space traversing all of the ceramic layers in which a castellation was designed. (Castellations are required on bottom two layers, optional on top ceramic layer.) Dimension "LW2" maximum and "L3" maximum define the maximum width and depth of the castellation at any point on its surface. Measurement of these dimensions may be made prior to solder dipping.
- Lead 4 = Collector.
- In accordance with ASME Y14.5M, diameters are equivalent to  $\phi x$  symbology.

**FIGURE 3.** Physical dimensions, 2N5794UC.