6 Lake Street, Lawrence, MA 01841
1-800-446-1158 / (978) 620-2600 / Fax: (978) 689-0803
Website: http://www.microsemi.com

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Tel: +353 (0) 65 6840044 Fax: +353 (0) 65 6822298

ELECTRICAL CHARACTERISTICS ***(T_A = +25°C, unless otherwise noted)***

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Emitter-Base Cutoff Current V_{EB} = 5.0Vdc V_{EB} = 6.0Vdc	I_{EBO}		2.0 10	ηAdc μAdc
ON CHARACTERISTICS (2)				
Forward-Current Transfer Ratio I_C = 1.0μAdc, V_{CE} = 5.0Vdc I_C = 10μAdc, V_{CE} = 5.0Vdc I_C = 100μAdc, V_{CE} = 5.0Vdc I_C = 500μAdc, V_{CE} = 5.0Vdc I_C = 1.0mAdc, V_{CE} = 5.0Vdc I_C = 10mAdc, V_{CE} = 5.0Vdc	h_{FE}	 45 200 225 250 250 225	 500 675 800 800 800	
Collector-Emitter Saturation Voltage I_C = 1.0mAdc, I_B = 100μAdc	$V_{CE(sat)}$		0.3	Vdc
Base-Emitter Voltage V_{CE} = 5.0Vdc, I_C = 100μAdc	$V_{BE(ON)}$	0.5	0.7	Vdc

DYNAMIC CHARACTERISTICS

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Forward Current Transfer Ratio I_C = 50μAdc, V_{CE} = 5.0Vdc, f = 5.0MHz I_C = 500μAdc, V_{CE} = 5.0Vdc, f = 30MHz	$\|h_{fe}\|$	 3.0 2.0	 0.7	
Open Circuit Output Admittance I_C = 1.0mAdc, V_{CE} = 5.0Vdc, f = 1.0kHz	h_{oe}		40	μmhos
Open Circuit Reverse-Voltage Transfer Ratio I_C = 1.0mAdc, V_{CE} = 5.0Vdc, f = 1.0kHz	h_{re}		8.0×10^{-4}	
Input Impedance I_C = 1.0mAdc, V_{CE} = 5.0Vdc, f = 1.0kHz	h_{je}	3.5	24	kΩ
Small-Signal Short-Circuit Forward Current Transfer Ratio I_C = 1.0mAdc, V_{CE} = 5.0Vdc, f = 1.0kHz	h_{fe}	250	900	
Output Capacitance V_{CB} = 5.0Vdc, I_E = 0, 100kHz ≤ f ≤ 1.0MHz	C_{obo}		5.0	pF
Input Capacitance V_{EB} = 0.5Vdc, I_C = 0, 100kHz ≤ f ≤ 1.0MHz	C_{ibo}		6.0	pF

(2) Pulse Test: Pulse Width = 300μs, Duty Cycle ≤ 2.0%.

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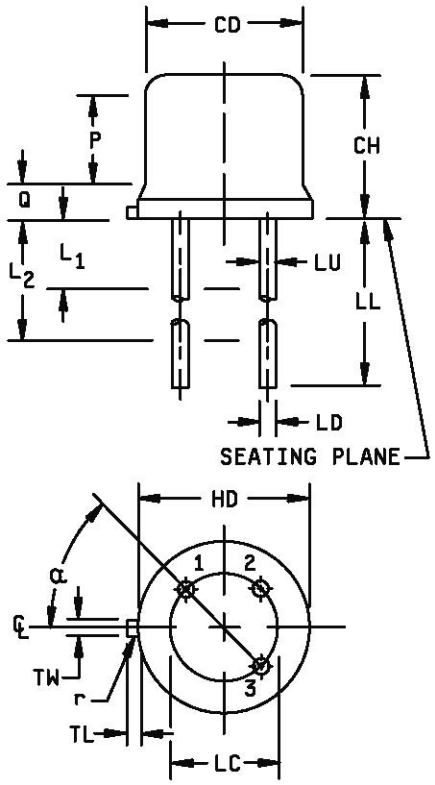
PACKAGE DIMENSIONS



Symbol	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
CD	.178	.195	4.52	4.95	
CH	.170	.210	4.32	5.33	
HD	.209	.230	5.31	5.84	
LC	.100 TP		2.54 TP		6
LD	.016	.021	0.41	0.53	7,8
LL	.500	.750	12.70	19.05	7,8
LU	.016	.019	0.41	0.48	7,8
L1		.050		1.27	7,8
L2	.250		6.35		7,8
P	.100		2.54		
Q		.040		1.02	5
TL	.028	.048	0.71	1.22	3,4
TW	.036	.046	0.91	1.17	3
r		.010		0.25	10
α	45° TP		45° TP		6

NOTE:

1. Dimension are in inches.
2. Millimeters are given for general information only.
3. Beyond r (radius) maximum, TW shall be held for a minimum length of .011 inch (0.28 mm).
4. Dimension TL measured from maximum HD.
5. Body contour optional within zone defined by HD, CD, and Q.
6. Leads at gauge plane .054 +.001 -.000 inch (1.37 +0.03 -0.00 mm) below seating plane shall be within .007 inch (0.18 mm) radius of true position (TP) at maximum material condition (MMC) relative to tab at MMC.
7. Dimension LU applies between L1 and L2. Dimension LD applies between L2 and LL minimum. Diameter is uncontrolled in L1 and beyond LL minimum.
8. All three leads.
9. The collector shall be internally connected to the case.
10. Dimension r (radius) applies to both inside corners of tab.
11. In accordance with ASME Y14.5M, diameters are equivalent to φx symbology.
12. Lead 1 = emitter, lead 2 = base, lead 3 = collector.

FIGURE 1. Physical dimensions (similar to TO-18).

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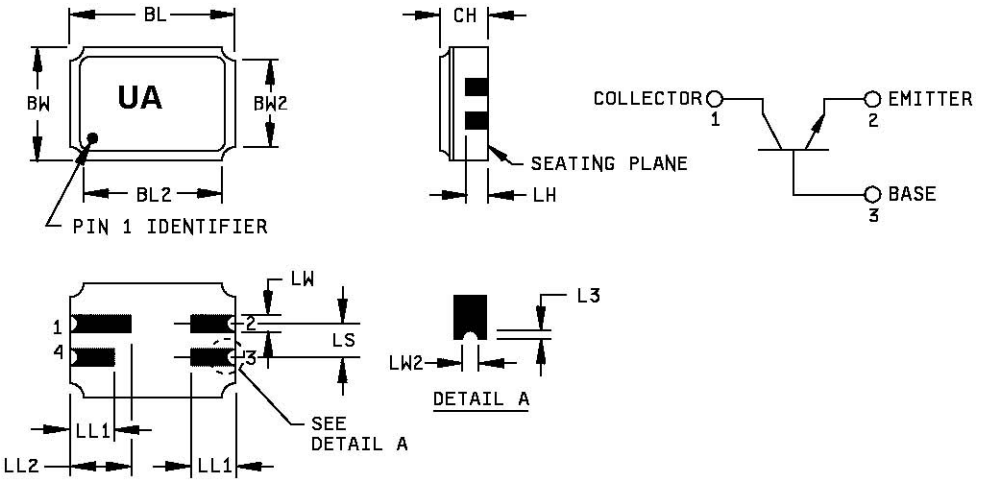

NOTE:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Dimension CH controls the overall package thickness. When a window lid is used, dimension CH must increase by a minimum of .010 inch (0.254 mm) and a maximum of .040 inch (1.020 mm).
4. The corner shape (square, notch, radius) may vary at the manufacturer's option, from that shown on the drawing.
5. 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 the bottom two layers, optional on the 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.
6. The co-planarity deviation of all terminal contact points, as defined by the device seating plane, shall not exceed .006 inch (0.15mm) for solder dipped leadless chip carriers.
7. In accordance with ASME Y14.5M, diameters are equivalent to φx symbology.

Symbol	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
BL	.215	.225	5.46	5.71	
BL2		.225		5.71	
BW	.145	.155	3.68	3.94	
BW2		.155		3.94	
CH	.061	.075	1.55	1.91	3
L3	.003	.007	0.08	0.18	5
LH	.029	.042	0.74	1.07	
LL1	.032	.048	0.81	1.22	
LL2	.072	.088	1.83	2.24	
LS	.045	.055	1.14	1.39	
LW	.022	.028	0.56	0.71	
LW2	.006	.022	0.15	0.56	5

Pin no.	1	2	3	4
Transistor	Collector	Emitter	Base	N/C

FIGURE 2. Physical dimensions, surface mount (2N2484UA).

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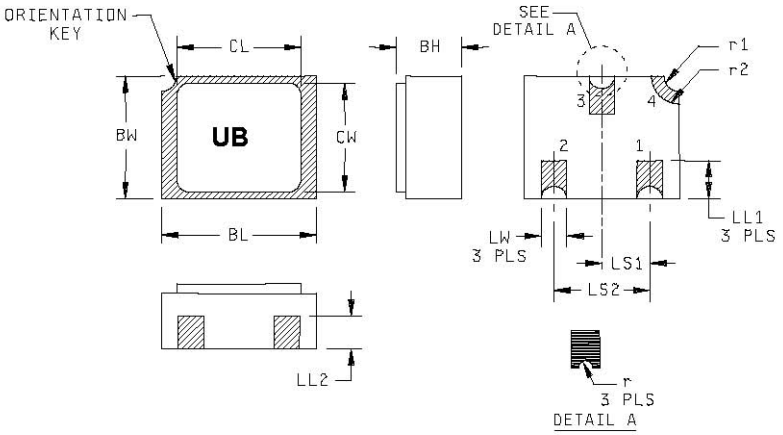

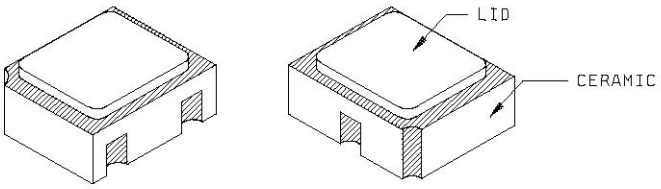

Symbol	Dimensions				Note
	Inches		Millimeters		
	Min	Max	Min	Max	
BH	.046	.056	1.17	1.42	
BL	.115	.128	2.92	3.25	
BW	.085	.108	2.16	2.74	
CL		.128		3.25	
CW		.108		2.74	
LL1	.022	.038	0.56	0.97	
LL2	.017	.035	0.43	0.89	

Symbol	Dimensions				Note
	Inches		Millimeters		
	Min	Max	Min	Max	
LS1	.036	.040	0.91	1.02	
LS2	.071	.079	1.80	2.01	
LW	.016	.024	0.41	0.61	
r		.008		.203	
r1		.012		.305	
r2		.022		.559	

NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Hatched areas on package denote metallized areas
4. Pad 1 = Base, Pad 2 = Emitter, Pad 3 = Collector, Pad 4 = Shielding connected to the lid.
5. In accordance with ASME Y14.5M, diameters are equivalent to φx symbology.

FIGURE 3. Physical dimensions, surface mount (2N2484UB).

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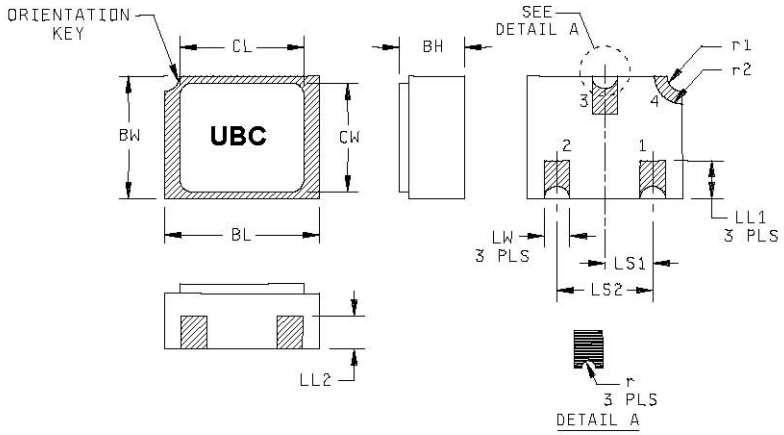

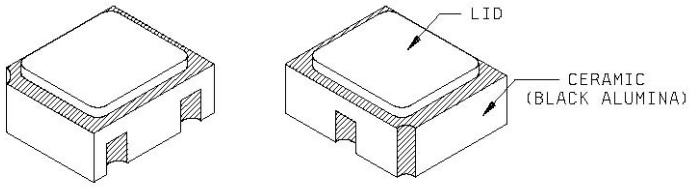

Symbol	Dimensions				Note
	Inches		Millimeters		
	Min	Max	Min	Max	
BH	.046	.071	1.17	1.80	
BL	.115	.128	2.92	3.25	
BW	.085	.108	2.16	2.74	
CL		.128		3.25	
CW		.108		2.74	
LL1	.022	.038	0.56	0.97	
LL2	.017	.035	0.43	0.89	

Symbol	Dimensions				Note
	Inches		Millimeters		
	Min	Max	Min	Max	
LS1	.036	.040	0.91	1.02	
LS2	.071	.079	1.80	2.01	
LW	.016	.024	0.41	0.61	
r		.008		.203	
r1		.012		.305	
r2		.022		.559	

NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Pad 1 = Base, Pad 2 = Emitter, Pad 3 = Collector, Pad 4 = connected to the lid braze ring.
4. In accordance with ASME Y14.5M, diameters are equivalent to φx symbology.

FIGURE 4. Physical dimensions, surface mount (2N2484UBC).