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2N4894
P-N PLANAR UNIJUNCTION SILICON TRANSISTORS

***electrical characteristics at 25°C free-air temperature (unless otherwise noted)**

PARAMETER		TEST CONDITIONS	2N4894 MIN	2N4894 MAX	UNIT
r_{BB}	Static Interbase Resistance	$V_{B2\text{-}B1}$ = 3 V, I_E = 0	4	12	kΩ
$\alpha_{r_{BB}}$	Interbase Resistance Temperature Coefficient	$V_{B2\text{-}B1}$ = 3 V, I_E = 0, T_A = −55°C to 100°C, See Note 4	0.1	0.9	%/deg
η	Intrinsic Standoff Ratio	$V_{B2\text{-}B1}$ = 10 V, See Figure 1	0.74	0.86	
$I_{B2(mod)}$	Modulated Interbase Current	$V_{B2\text{-}B1}$ = 10 V, I_E = 50 mA, See Note 5	10		mA
I_{EB1O}	Emitter Reverse Current	V_{EB2} = −30 V, I_{B1} = 0		−10	nA
I_P	Peak-Point Emitter Current	$V_{B2\text{-}B1}$ = 25 V		1	μA
$V_{EB1(sat)}$	Emitter-Base-One Saturation Voltage	$V_{B2\text{-}B1}$ = 10 V, I_E = 50 mA, See Note 5		4	V
I_V	Valley-Point Emitter Current	$V_{B2\text{-}B1}$ = 20 V	2		mA
V_{OB1}	Base-One Peak Pulse Voltage	See Figure 2	3		V

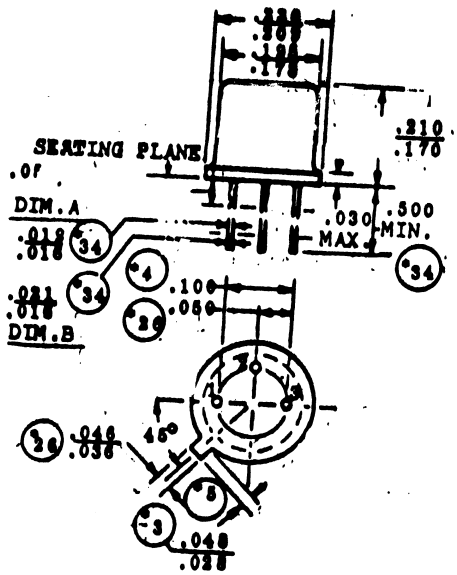
NOTES: 4. Temperature coefficient, $\alpha_{r_{BB}}$, is determined by the following formula:

$$\alpha_{r_{BB}} = \left[\frac{(r_{BB} @ 100°C) - (r_{BB} @ -55°C)}{(r_{BB} @ 25°C)}\right]\frac{100\%}{155\ deg}$$

To obtain r_{BB} for a given temperature $T_{A(2)}$, use the following formula: $r_{BB(2)} = [r_{BB} @ 25°C][1 + (\alpha_{r_{BB}}/100)(T_{A(2)} - 25°C)]$.

5. These parameters must be measured using pulse techniques, t_p = 300 μs, duty cycle ≤ 2%.

*Indicates JEDEC registered data.



Quality Semi-Conductors