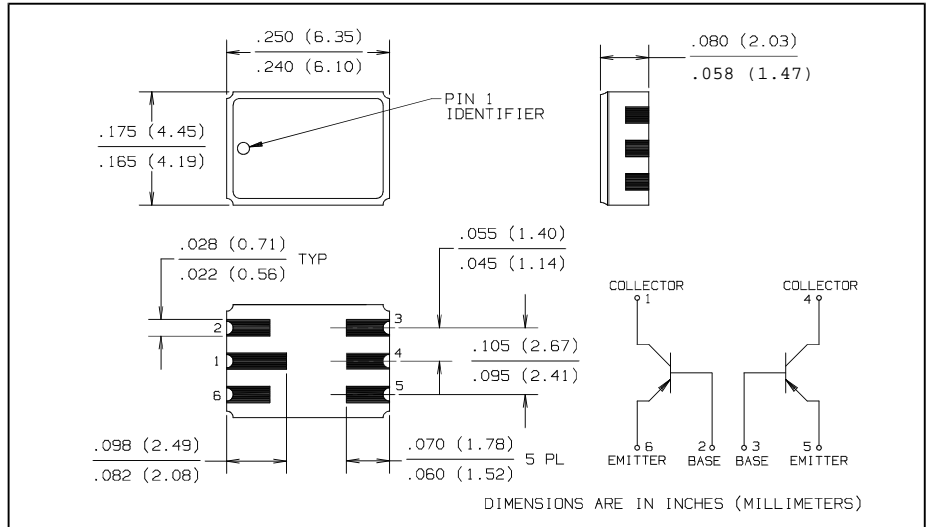


Surface Mount Dual PNP Transistor Type JANTX, JANTXV, 2N5796U



Features

- Ceramic surface mount package
- Hermetically sealed
- Miniature package minimizes circuit board area required
- Electrical performance similar to dual 2N2907A
- Qualification per MIL-PRF-19500/496

Description

The JANTX2N5796U is a hermetically sealed, ceramic surface-mount device, consisting of two individual silicon PNP transistors. The six pin ceramic package is ideal for designs where board space and device weight are important design considerations.

Typical screening and lot acceptance tests are provided on page 13-4. The burn-in condition is $V_{CB} = 30$ V, $P_D = 300$ mW each transistor, $T_A = 25^\circ$ C. Refer to MIL-PRF-19500/496 for complete requirements.

When ordering parts without processing, do not use a JAN prefix.

Absolute Maximum Ratings ($T_A = 25^\circ$ C unless otherwise noted)

Collector-Emitter Voltage	60 V
Collector-Base Voltage	60 V
Emitter-Base Voltage	5 V
Collector Current Continuous	600 mA
Operating and Storage (T_J, T_{stg})	-65° C to $+200^\circ$ C
Power Dissipation (single transistor, no heat sink)	0.5 W
Power Dissipation (total device)	0.6 W

Type JANTX, JANTXV, 2N5796U

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNIT	TEST CONDITIONS
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	75		V	$I_C = 10\ \mu\text{A}$
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	60		V	$I_C = 10\ \text{mA}^{(1)}$
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	5		V	$I_E = 10\ \mu\text{A}$
I_{CBO1}	Collector-Base Cutoff Current		10	nA	$V_{CB} = 50\ \text{V}$
I_{CBO2}	Collector-Base Cutoff Current		10	μA	$V_{BC} = 50\ \text{V}, T_A = 150^\circ\text{C}$
I_{EBO}	Emitter-Base Cutoff Current		100	nA	$V_{EB} = 3\ \text{V}$
h_{FE1}	Forward Current Transfer Ratio	75			$V_{CE} = 10\ \text{V}, I_C = 100\ \mu\text{A}$
h_{FE2}	Forward Current Transfer Ratio	100			$V_{CE} = 10\ \text{V}, I_C = 1.0\ \text{mA}$
h_{FE3}	Forward Current Transfer Ratio	100			$V_{CE} = 10\ \text{V}, I_C = 10\ \text{mA}^{(1)}$
h_{FE4}	Forward Current Transfer Ratio	100	300		$V_{CE} = 10\ \text{V}, I_C = 150\ \text{mA}^{(1)}$
h_{FE7}	Forward Current Transfer Ratio	40			$V_{CE} = 10\ \text{V}, I_C = 150\ \text{mA}, T_A = -55^\circ\text{C}^{(1)}$
h_{FE5}	Forward Current Transfer Ratio	50			$V_{CE} = 10\ \text{V}, I_C = 300\ \text{mA}^{(1)}$
h_{FE6}	Forward Current Transfer Ratio	50			$V_{CE} = 1.0\ \text{V}, I_C = 150\ \text{mA}^{(1)}$
$V_{CE(SAT)1}$	Collector-Emitter Saturation Voltage		0.4	V	$I_C = 150\ \text{mA}, I_B = 15\ \text{mA}^{(1)}$
$V_{CE(SAT)2}$	Collector-Emitter Saturation Voltage		1.6	V	$I_C = 500\ \text{mA}, I_B = 50\ \text{mA}^{(1)}$
$V_{BE(SAT)1}$	Base-Emitter Saturation Voltage		1.3	V	$I_C = 150\ \text{mA}, I_B = 15\ \text{mA}^{(1)}$
$V_{BE(SAT)2}$	Base-Emitter Saturation Voltage		2.6	V	$I_C = 500\ \text{mA}, I_B = 50\ \text{mA}^{(1)}$
$ h_{fe} $	Magnitude of Small-Signal Short-Circuit Forward Current Transfer Ratio	2	10		$V_{CE} = 20\ \text{V}, I_C = 20\ \text{mA}, f = 100\ \text{MHz}$
C_{obo}	Open Circuit Output Capacitance		8	pF	$V_{CB} = 10\ \text{V}, I_E = 0, 100\ \text{kHz} \leq f \leq 1\ \text{MHz}$
C_{ibo}	Input Capacitance		25	pF	$V_{EB} = 2.0\ \text{V}, I_E = 0, 100\ \text{kHz} \leq f \leq 1\ \text{MHz}$
t_{on}	Turn-On Time		50	ns	$V_{CC} = 30\ \text{V}, I_C = 150\ \text{mA}, I_{B1} = 15\ \text{mA}$
t_{off}	Turn-Off Time		140	ns	$V_{CC} = 30\ \text{V}, I_C = 150\ \text{mA}, I_{B1} = I_{B2} = 15\ \text{mA}, PW = 200\ \text{ns}$

(1) Pulsed Test: Pulse Width = $300\ \mu\text{s} \pm 50$, 1-2 % Duty Cycle.

HI-REL
SURFACE
MOUNT

Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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